

749

AGTCCGGGGG ACCTTTT TAG TCGGTAGATT GAGATTGCAA ACAAATCTGC ATCTACATTG	4860
AAAGCTTAAT TTCTAATAAT TGAAAAAATC GAATGAAAAA TTTCTTACCT TCATTACACAG	4920
AGCTCGATTT CAGAGCTCTT TTTGCTAGCT TATTCATACT TTTCTGAATT TCGAAAAAGA	4980
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AGAAGTCTCA TGGCAGTTAA AGATTTTATG ACCCGCAAGG TAGTTTATAT TAGTCCAGAT	5100
ATAACAGTAT CTCATGCAGC AGATTTGATG AGAGAGCAAG GTTTGCACCG TCTGCCTGTT	5160
ATCGAAAATG ATCAATTAGT TGGTTTGGTG ACTGAGGGAA CCATTGCACA AGCAAGTCCA	5220
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AAAGATGTCA TGATTGCGGA TGTGTGCTACT GTCTCAGGCT ATGCTAGTCT AGAAGATGCA	5340
ACTTATCTGA TGTGAAAAA TAAGATTAGT ATTCTCCCTG TCGTAGATAA CCATCAAGTA	5400
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GTTTCTTTGA TTGTAGAAGA AAATTTGAAT ATCTCCATA CAGTCAATAT TCCGCGTAAG	5580
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AACAATGCCA TCTTGGAAT CCATCCAGGT TCTGGTGGTA CTGAGGCGCA GGACTGGGGT	6240
GATATGTTGC TTCGTATGTA TACTCGTTAT GGTAATGCTA AAGGCTTTAA AGTGGAAGTG	6300
TTGGATTACC AAGCAGGTGA TGAGGCTGGT ATTAAGTCGG TAACTTTATC ATTTGAAGGG	6360
CCTAATGCCT ATGGTCTCCT CAAGTCAGAA ATGGGTGTTT ACCGCTTAGT GCGAATCTCA	6420
CCATTTGACT CTGCCAAACG TCGCCATACC TCTTTCACAT CTGTAGAAGT GATGCCAGAA	6480
TTGGATGATA CTATGAAGT GGAAATCCGT GAAGATGATA TCAAGATGGA TACCTTCCGT	6540

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TCAGGTGGTG CCGGTGGACA AAACGTCAAT AAGGTTTCAA CAGGTGTACG TTTAACCCAC	6600
ATTCCAACGTG GAATTGTTGT CCAATCAACA GTAGATCGTA CCCAGTATGG AAATAGAGAT	6660
CGTGCCATGA AGATGTTGCA GGCTAAGCTC TATCAAATGG AGCAAGATAA GAAGGCTGCG	6720
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TATGTCTTCA CGCCTTATAC TATGGTAAAA GATCACCGAA CTAGCTTTGA GGTGCTCAG	6840
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CAAGATGGCG GTGCCAATAC AGAAAGACTC TTCAAGTTAG CTTCATTTAT CCGTGTTTGG	8160
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CGTATTACCA TTATTTCCCG CAGTCGCGAA ATTCAAATCA TCGGCTTGGT CGGAGCTAAA	8280
AACAGTTATA TCCGTGGACC GTTCTTGTTA GAAGGAGCCT TTATCGGTTT ATTGGGAGCT	8340

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ATCGCACCAT CTGTTTGGT CTTTATTGTT TATCAAATTG TTTACCAATC TGTCAACAAA	8400
TCGTTGGTAG GGC AAAATCT ATCCATGATT AGTCCAGATT TATTTAGTCC GTTGATGATT	8460
GCCCTACTAT TTGTGATTGG GGTTCATT GGTTCATTGG GATCAGGAAT ATCCATGCGC	8520
CGATTCTTGA AGATTTAGGT AAAATAGCTG CTTTATGAG GAGATTGTAA AATCTCCTTT	8580
TTTGCTACAA GAGTTTGA AAAGAGATGC GCAGAAGAAA AGAGCTTCCA AAGAAGTCCC	8640
CCAGAGAAGA CTTC	8654

(2) INFORMATION FOR SEQ ID NO: 99:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 19718 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 99:

TGTCGCGTCA AAATCATTAC TATGGCTATG TATAGCCCTT ACTATGACTT GGCTAAACAC	60
GTTCGCTTTC AAATTTCTAG GCTCAGGCTG AACAGTCTC CCAGGCTGTT CACTCCCGAA	120
TGCTAAATC GTTCTTGATC GCTTTCACAT TGTACAACAT CTTAGCCGTG CTATGAGTCG	180
TGTGCATGTC CAAATCATGA ATCAGTTTCA TCGAAAATCC CATGAATACA AGGCTATCAA	240
GCGCTACTGG AAACATTC AACAGGATAG CCGTAAACTG AGTGATAAGC GATTTTATCG	300
CCCTACTTTT CGCATGCACT TAACAAATAA AGAAATCTT GACAAGATT TAAGCTATTC	360
AGAAGACTTG AAACACCACT ATCAGATCTA TCAACTCTTA CTTTTCCTT TTCAGAACAA	420
AGACCCGTGAG AAATTTTTCG GACTCATTGA GGACAATCTG AAGCAGGTTC ATCCTCTTTT	480
TCAGACTGTC TTTAAACCT TTCTCAAAGA TAAAGAAAAG ATTATCAACG CCCTTCAACT	540
ACACTATTCT AATGCCAAAC TGAAGCGAC CAATAATCTC ATCAAACCTA TCAAGCGCAA	600
TGCCTTTGGT TTTGAAACT TTGAAAACCT CAAAAACGG ATTTTATCG CTTTGAACAT	660
CAAAAAGAA AGGACGAAAT TTGTCCTTTC TCGAGCTTAG CTGACTTCAA CCCACTACAG	720
TTGACAAAGA GCCTAATTTC CATAAAATTT GACATGGAAA TTATAAAACC ATTACTAGTT	780
TAGTCCTTTT TGATAACGTG CCAATTCGGC TTGGTTTCGCC CAAACATAGT GACCTGGACG	840
GATTTCTACC ATAGATGGCT TATCAGTCTC ATAGTCGTGT TGAATTGGAT CGTAAACCTT	900
CAAGACCTTC TTACGTTCCA AGATTGGATC TGGGATTGGT ACCGCTGAAA GCAAGGCTTG	960
AGTATATGGG TGAATTGGAT TGTAAACAA TTCTCTGTT TCTGCAACCT CTACAATAAC	1020

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ACCCTTGTA	ATAACTGCGA	TACGATCTGA	AATAAAGCGA	ACAACCGACA	AGTCATGGGC	1080
GATGAAGAGA	TAGGTCAGGC	CGAGCTCTTT	TTGGAATTTT	TTGAGCAAGT	TCAAGACTTG	1140
GGCACGTACA	GAAACGTCCA	AGGCTGAAAT	TGGCTCATCT	GCAATAACAA	AGTCTGGTTG	1200
CATGACCAAG	GCACGGGCAA	TACCGATACG	TTGACGTTGA	CCGCCTGAGA	ATTCATGAGG	1260
GTAACGAGTC	AAGTGCTCAG	CAAGAAGACC	TACTTCACGG	ATAATATTTT	GAAC'TTCTC	1320
TTTACGTTCT	TCTTCATCCT	TAAATAAACG	GTGATTGTAA	AGACCTTCAG	AAATAATATA	1380
ATCAACAGTC	GCACGTTTAT	TCAAACCTGC	GGCAGGGTCT	TGGAAAATCA	TCTGGATTCTG	1440
ACGAATCAAT	TCCGAGCTT	GTTCACGCGA	TTTCTTACCA	TTAATCTTTT	GACCATCAAA	1500
AATGATATCT	CCATTAATTG	TATCATTTAG	ACCGATGATA	GCACGACCAA	TAGTTGTTTT	1560
CCCACTACCG	GACTCACCTA	CAAGCGAGAA	AGTTTCTCCC	TTGTTGATAA	AGAAGTTAGC	1620
ATTTTAAACC	GCGACAAACT	TCTTACTTCC	TTCACCGAAG	GAAATTTCTA	AATCTTTGAT	1680
TTCTACTAAT	TTTTCAGACA	TTTCCTTCCT	CCTAGTCAGC	CAGATGGGCA	AATCCCATT	1740
TTTCACGGAT	CTTATCATGG	AGATTGCAA	TCACAGCTGG	TTTTTCTACT	TTCGGAGCAT	1800
CCTCATGAAG	AAGCCAAGTT	TTAGCCCAAT	GTGTCTCTGA	TACTGAGAAT	TGAGGAGCTT	1860
TTTGTTGAA	GTCAATCTGC	ATTGCGTAGT	CAGAACGCAA	GGCAAAAGCA	TCCCCTTTCA	1920
GGTCAGTATA	AAGTGACGGA	GGTGTTCCTG	GGATTGAGTA	AAGATCCCCCT	TTATCATCAG	1980
CAAGCTGAGG	CAAGCTAGAC	AAGAGACTCC	ATGTATATGG	ATGGCGAGGG	TCATAGAAGA	2040
CTTCCTCAAC	CGTTCCATAC	TCAACGATTT	CTCCTGCATA	CATAACCGCT	ACCTTATCCG	2100
CAATACTTGC	CACCACACCA	AGGTCGTGGG	TAATAAAGAT	TGTTGTGAAA	TGATACTCGT	2160
TTTGTAAGA	TTTGTAGAAA	TCAATAATCT	GAGCTTGAAT	AGTTACATCC	AAGGCAGTTG	2220
TTGGCTCATC	ACAGATCAAG	ACATCAGGTC	GGCAGGCAAG	GGCAATAGCA	ATAACGATAC	2280
GTTGACGCAT	TCCTCCAGAA	TATTGGAATG	GGTATTTCAT	AAAACGTCTA	TCTGCGTCTG	2340
GAATGCCAAC	CTTATTCATG	TAGTCAATGG	CCAATTCCTT	CGCTTCTTTA	GCTGTTTTC	2400
CTTGGTGTTT	TACAATAACT	TCTGTAATCT	GACTACCAAT	TGTTTTAATG	GGGTCCAAAC	2460
TAGTCATTGG	GTCTTGGAAG	ATAGTCGCAA	TCTTAGCACC	ACGAATTTGT	TCCAATCCT	2520
TGTGAGAAGA	TAAAGCTGTC	AAGTCCTGAC	CACGGTAGTC	AATACTACCT	TGGGCAATAC	2580
GACCATTTTC	TTGAGCATA	CCTGTGAAGG	TCTTTGTCAA	AACAGATTTA	CCTGATCCTG	2640
ACTCACCTAC	CAAGGCTAAT	ACTTCTCCTT	CGACTAGTTC	AAGGGAAACG	CCGCGAATGG	2700
CTGTCAATAC	TTTGTACGA	ACGTCAAATT	CCACGACAAT	ATCGCGAGCA	GTCAAAATTA	2760
CATTTTTTTC	TTTGTTCATT	TCTACTCCTA	TCTATGTGTA	CGTGGATCAC	TAGCATCCGC	2820



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TAAGTTTTGA CCAACTACGA AAAGGGACAA GGATACCAAG ACAAGGGTTG TCAATGGAAT	2880
CCAGAACAAG TAAGCATGGG TTGTTACGTT TTGTGAATAA TCCGAAATCA AACGACCCAA	2940
ACTTGGCACT GTAATCGGTA ATCCAAGACC GAAGAAAGAC AAGAAGGCTT CGTATGAGAT	3000
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ATTTTTGGCA ACAATCTTCA AGGTTGGTGT TCCCAAAGTA CGTGACGCCA AGTTGTATTC	3120
CAAGTCACGA TAGCGCAAGA TTTGCACACG GATCATGAAG GCAATACCAA TCCATGTTGT	3180
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TGTCGCAATC ACAGAAATGA GGATGGAGTT ACGAGCTCCG AACCAGACAC CGTCAAAGAG	3420
CGATTTACCG TTACTGTCAG TACCGAACCA ATGCTCCGCA TTTGGCTTGA TATAACGAAC	3480
ACTAAAGTCG TTTACCTTGC TGACATCATT GAAATCAAAC TTAGAAAACA TTGGGTAGAT	3540
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CATAAATGTG TTAAACACTG ATTTCCAGTA AGAATATGCT GGCGCATCAA TAGTTTCAGA	3660
GGCAAAATCG TCACGTTTTA CAAACTGAAA TTTTCTTTA TCGATTGTAG ACATTATTTG	3720
CCTCCTTTCT CAGTCAATTT AATACGTGGG TCAATAATAG TCATCCAAAT ATCTCCCAA	3780
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TCAGTAAGGG TTGCACCACC GATAACCCCA ATAATGGCAG CAGGAATTCC TGAAACCAGC	3960
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CAATCTCCAG CTCCCAAGAT AGGGAATGAA TCTGGAAGGG CAATAGATGA TCCAATCAAT	4200
CGAACGATGT AAACCAAGGC AATCGTTGGA AGAGCAAGCA AGAAGGTCAA AGCCCCGTGT	4260
GAGAGGCTAT CAATCCAAGT GTTCTTGAAA CGAGCCATGG CTGAACCAAG TGGCACGGCA	4320
AGAGCATAGG CAAGAACCAA ACCAATCAAA CCAGTAATAG CAGAGCTGAC AATCATAGAT	4380
GGATATTGGT AATTACTTTC AGTCGCTGTA TAAGGATCAT CTTTCCATA GCTAGCTACT	4440
TCACGAGAGT CAGCCTGACT AGGTGACTTG TAGGTTCTTG AGTAAATATT TACAGAAGAC	4500
GTTTTCTTAC CTGTTGGGAA CTGAACTTGG GCAGTTTGG TTTGTCCTTG ACCTTGAGTA	4560

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ATAACCTGAA	GAACGGTGT	ATTAGCATAG	GTTGGGTAAG	AGTCACCTAA	ATTCAAGTTC	4620
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GTTCTGAAAC	CGACCAATGA	CCATCCGATA	GCTGGATCAT	TTTCAAAACG	AAGGTAGCGT	4740
TTCAAGTCTG	GATTTTCAGG	GTCTTGGATT	TTATTTGTAT	GGTCAATGTC	AATCAAGTTA	4800
GCATAGAAGT	GAAAAACACG	TTCAAAAATT	GGAATTTTAC	GAGTAGCATA	GAATTGACCA	4860
CTTTCAGTAA	ATTCTCCCAA	AGTCCAACCA	TGACCTAATT	GATTGATGTA	CTTTTCATAA	4920
ATAGCTTTAT	TGGTCGCATT	TGCTTCTACT	GTTACAGAAG	AATCCATGCT	ACTTGCCTTT	4980
TCTTGCAACT	CTTTAGTATC	GTAATACTCA	ATGTAGCCCA	TACGCTCAAA	CACAGTATTT	5040
TCATAGTTAT	CACGTTTATC	AGCCGTGTGC	GCAATTTTAT	TATAGTTAGG	ATCCTGCTTG	5100
AAAATCAATT	TTCGAGGAAC	CAAGGTATAG	ATAATCGTGT	AGGTCAAAGT	CGTTACTAAG	5160
AAAATCGAAA	CCAATGACCG	CAAAACACGC	ATAAAAATAT	ATTTTTTCAT	ATTATTTCCCT	5220
TTAAAAATCC	CAAAAGAACC	TTCTCCTCAT	GGAGAGAAAG	TTCTATTAGA	AATTATTTAC	5280
TTCACATGAC	TTGCCAATTC	TTTTTGAGCT	TTCTCATTTG	ATTCAGCTTT	TTCTTTCAAC	5340
CATTTTTTAC	GAGCTTTTTC	ATACTCTTCC	TTAGTCACCA	CTTTATCTTG	TGATTTCAAA	5400
TATTTGAAGT	AAACATCTGA	CCCCTTAGAG	CCTGTTTGCG	CAGAAGCTCC	AGTAAATGGA	5460
ACAATTCGTG	AAAGCACTGG	TGCTGCACCA	GAAGAAGCCA	TAGCAGGAAT	AAAGAGTGAA	5520
CTATCTGTCA	ACCATGCTTG	AGCCGCTGCA	TATTTTTTCAT	AACGGACATT	CAAGTCGCTT	5580
GTCTCTCTGG	CAGCTTCATC	AACTAATTTA	TCGTATTCTT	TCAAACCAAC	TTGAACTACT	5640
GAAGGGCTAT	TTGGATTATC	AAATCCTAAA	TATGTTTTTG	TAGTTTCACT	GCTAGTTGTT	5700
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GATACATCCC	AATCCTCAGA	TGAAGCATTG	GCAGCATAGT	AAGTAATATT	AAGGAATTCA	5820
TCACTTGTC	TTTGTGGAAT	ATCAACAACG	ACATTTTCAA	CACCAAGAAC	TGTTTCTACA	5880
GATTGTTTAA	AGGACTGAAT	ACGAGATATG	TAGTTTTTTG	ATGCTTGGTC	TACTGGAACG	5940
TCCAGATGAA	TAGGAAACTG	AACGCCGTCT	GCTTCTAAAG	CTTCTTAGC	TTTCGCAAAC	6000
TCTGCCCTGG	CCTTGTCAGC	ATTGAATAAA	CCATCCTGCC	CATCAGCTAA	ATTCACACCT	6060
TTCCACTCAT	CACCATAAGC	AGGAAGTTGA	GCAGCGACTA	AATCACCAAA	GGTCTTCTCA	6120
CCAGCTGAAA	CAAAGTCTGG	TTTTACAAAT	AAATTACGAA	CTGCTAAAGC	TGCTCCATCT	6180
TTACCATTGA	TTTGAGCTGA	GTAAGCTGAG	CGATCAAGAG	CAAAATTCAA	GGCTTGACGG	6240
AAATCTTTGT	TAAGCAATGC	CTTCTTAGTA	GCTACTTTCT	CTGAATCTGT	AGTTTGTAGAA	6300
GTATAGTTGT	AACTTTGGCG	ATCAATATTC	ACACCCAGAC	CAGCAATCCC	AGAGCCTGAT	6360

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TGTGTGTAAT	AGATATTGTC	CTTGTATTCT	TCTGCAACCT	TAGAATAGTT	GGAGCTGGTA	6420
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TCTGATCCAT	CATAGTAAGC	TAGATTGATA	GTATCTAGGT	GGACATTTTC	TTTATCCCAA	6540
TATTGCTCAT	TTTTTACAAA	CTCTACAGAA	GATTTTGCAG	TCAACCCCTT	CAACAAGAAT	6600
GGACCATTAT	AAAGCAAGGA	TGTCGGATCT	GTTGGTTTAG	CAAAATCGCT	TCCTTTTGAT	6660
GTTTCGAATT	CTTCATTGAG	AGGCCAGAAA	ATAGAATAGG	TCAACTTAGA	GTTCCAGAAC	6720
GGTTCAGGCT	GGTTCAAAGT	GTATTGTAAC	GTATAATCAT	CAACCGCCTT	GACACCAACT	6780
GTTGAAAAAT	CTGTTGAAGT	TCCTGATAGA	TAATCTGCCA	AGCCTTTAAC	CGAATTTTCA	6840
GCTAAATACA	TAGCTTCTGA	TTTTTTATCT	GCTGCGTGT	TTAAACCGTT	CACGAAATCT	6900
TTAGCCGTCA	CCTCTGCATA	TTCTTCTCCA	TCAGAGGTAA	ACCATTTAAC	CCCTTTACGA	6960
ATCTTATAAG	TGTAGGTCAA	ACCATCCTTA	GAGACTTCCC	AATCCTCTGC	AACTGCAGGA	7020
GCAAGATTAC	CGTAATTATC	GTTAGTGAAT	AAACCATCAA	TCCCATTGTA	AGTCACTACT	7080
GTTGTACTAT	TTTTACTTGA	AATCAGGTAG	TCCAAGGTTT	CTGGGTCTGC	TGTATAAACA	7140
TAGCCATAAG	CTTTAGGGGC	TGATGAATCA	GATGATTTTG	AAGAACTGCA	TGCTGCAAGT	7200
ACACCTGCTG	CTAATAAAAC	AAGACCTGCT	GTAGCAAATA	CACGATTTTT	TTTCATTTTC	7260
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CAGAAACTTT	GGAGTTTAGG	AAGACATACA	GTAAAATGAA	ATACGGACGG	AACAATGTGA	7500
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TGCTCCTCGC	TATCACGTTT	CTATTCATAG	CCTACGATTT	CACTATTGCT	TTCTCTGACA	7740
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CTCACGATAG	TCAGGCTTGG	GGAGCGCTAT	TGTATTACCC	GGTAGTGGAG	CCCTACAGAG	7860
GACTTACACC	TCAGATGCAC	GACATGCCCA	TCGTATAAAA	AATCTCCTAC	CCAAGGTAGA	7920
AGATTTCAAA	CTTATAAAAC	TTAATCCGTC	ATGTCCGATA	CCAACATTCG	ATGCTCCAAT	7980
GGAACTACTG	ACATAACTAG	CAAGAAAATA	AAGCCTGACT	GAATCCAGAA	GAGAGCCAAG	8040
TCAAAAATTC	CGTGCACAGC	AACCACTGTA	AGGAAAGATA	GATAAAGGCC	GATAATCGGA	8100

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CGTTTCCCCG	ACTCCTGACT	CATATCCATC	ATCAAGCGAA	CAGGAGCAAC	AGAAGACAAA	8160
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GCATGTTTCAT	GATAAGGAGC	ATGTATCCGA	GGATAAGAGT	TCATATAGGT	CAATGGCCCT	8280
TCACCCCAAA	AAGGATTTTG	CTTAAACAAG	GCCATCCCAG	CATCCCAGAT	AGAAATGCGT	8340
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GCAGCTGACA	AGACACTACC	AAACAAGACA	AACTGCAAAA	TCAATCGAAA	GAATTTATGG	8820
GATAAAATCG	ACTGATAGTG	CAAAAAGAAA	ATAGTAAATA	GAAACATTCC	TACTGAAGCC	8880
ACAAGACCCA	TCCAATTTTG	TGCAAGAATG	GATATAACAG	TACTATAGCT	AAGAAAAAGA	8940
AGCAGCATCG	GATGCTCCCC	CATTTTCTGA	AGAATACTTT	TCATGTCTCC	TGTAAAAATC	9000
AAACTGATAA	TATATAAACA	GAGTACAAC	ACAAAAAGAT	AAAAGGGTAA	AAAGATACTC	9060
AGGATAATTC	CCAATAAAAT	CAGCTCTTTA	CTAGACAACC	CCTTCAGCTT	TTCAATAAAG	9120
CCTATTGATT	TCAAAATGAA	TCCTTTCTCT	CCAAATCAGC	TGATTTCAGAT	AATAGTAAGC	9180
TATCCTATAT	TGTACCACTT	TTTTAGCAAT	TTGAAAACAA	AGGAAACGTT	TTCCAAAATA	9240
AAAACCCTAT	TTTATCCACC	ATATCAAGGC	TTCAAAATGA	TACTTCAACT	CCATTCTCAA	9300
TTACCCGATA	AGTCTGATTT	TGCAAAATCA	TTTCTACTAC	TGCTGTTACG	GACTTATCTT	9360
TATTTTGACG	TTTGATTACA	ATGCTGTGAG	CTGTTGGTGT	CTCTATCTCA	GTAGTCCCTT	9420
CTAGATCAAA	GGCTTCTGAA	CGGTTACGGA	AAGAAAATAG	ATTGAGAAGG	GCCTTCACAA	9480
CAGGTCGTTG	CACTTCTTTT	GCTATTTCTT	CGTTGCTATA	GTAATGACGA	TTAATATTTT	9540
GACCTTCTTT	AGTTTCTTCT	AATAATTCTA	AGTCATTCTT	GCCTGCTAAT	AGACCCACAT	9600
AGTAAATCTG	AGGAATACCT	GGGGCAAAAG	CTTGAATTAG	ACGAGCGAGA	AAATACTTGA	9660
CATCATCATC	TCCAAGCGCT	GAATAGTAGG	TTGAATTGAT	TTGGTAGATA	TCTAAGTTGT	9720
TATACTCGGC	ACTAGAGTAC	TTACGTTTGA	CATTGGCTCC	AACCTTATAG	AGTTCATTTG	9780
AAGCATAGTC	AATCTCCTCA	TCGGTCAGGA	TATCCTTGAC	ATCTACTACT	CCAATCCCAT	9840
CATGGGTATC	TAGCGTCGTA	AATTGCTTCA	TCGGGCTCAT	CTTTAACCAC	TTAGCCAAAC	9900

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GCTCTGTTCT	GGAAGCTGTA	AGAGTATAAA	GTGTCACCAT	TGGAAGAGCA	AAATCATAAA	9960
CATAGTAATC	ATGGTCTGCT	ATTTTAAACT	GAATCGAATA	GTGTTTCATGA	ATCTCAGGTA	10020
AAAGCTCTGT	CCCATACTCA	GCAGCGATAT	CTCGAACTTT	GTCCAATAAA	TCCCAAATAT	10080
CTGGTTCCAC	AAAGAAATCA	TTAGTATCCA	ATTTCTTCAC	TGCATAAGCA	AAGGCATCTA	10140
GACGAATCAA	ATCACACCCA	TTACTTGCCA	AGTGC'TGAAT	GGTCTTACGG	ATAAAT'TCCA	10200
TAGTTACTTC	TTTGGTCACA	TCAAGATCAA	TCTGCTCCTC	ACCAAAGGTA	TTCCACAAAT	10260
GTTCCACTGA	ACCATCTTCA	AACACAATCT	CTTGCTTTGG	TGCACGATCC	TTACGCTTGT	10320
AAATTAATC	TACATCAGAC	TGTGTCGGAC	GGTTTTCTGG	CCAAAAC'TTA	TCCCAGTTTA	10380
AAAAGAGAGC	TTTAAAT'TCA	CTGGCTTCAT	GTTTTTCTTG	ATAGTCCTTA	TAATACTTGG	10440
ATTGACGAGA	AATATGATTA	ATCATAAAAT	CAAACATAAG	ATAATAT'TTC	TCACCTAAAC	10500
GCTTCACATC	CTCCCAATCA	CCAAAAGCTG	AGTCCACTTC	GTCGTAGTCA	ACTGGCGCAA	10560
ATCCACGATC	AACTGTTGAT	GGGAAAAATG	GTAAAAGGTG	AACTCCTCCA	ATAGCATCTC	10620
CAAAATGCTC	TTCCAAATTA	TCATATAAGT	CTTTAAGATT	ATTTCCAAGG	CTATCAGAAT	10680
AGGTAATCAA	CATGGTTTTA	TTTTGAATTG	GCATCATTAC	TCTCCTTTTT	CTAATTGAAG	10740
CCAAGTCTCA	TATGATCTGG	CTTCATAAAT	AAAATTCATT	TTAAATCTCT	ATTTATCATC	10800
AAACTCGTAC	TAATATAGAC	TGTGATAAAC	AAAGTACTAC	TTTCTTGTTT	TCTGCATAGA	10860
ATTATCAACA	AGCTAAACTC	TTCCTCTGTG	TCAAAGACTA	TAGAT'TCCAT	GAGCTCTTCT	10920
TATACTCTTC	GAAATCTCT	TCAAACCACG	TCAGCTTCAC	CTTGCCGTAG	GSTATGGTTAC	10980
TGACTTCGTC	AGTTTCATCC	ACAACCTCAA	AACAGTGT'TT	TGAGCAACCT	GCGGCTAGCT	11040
TCCTAGTTTG	CTCTTTGATT	TTCATTGAGT	ATTACTTCAC	TGCCCCGTTG	CTCATTCCTG	11100
AAATGATATG	GCGTTGGAAG	AAGAGATAGA	CAATGGTGAT	ACTGATAATG	CCGACCACGT	11160
AAGAGGCAAA	GCTTGGTCCG	TAGTCGTTGA	AATATTGGCC	TGCGTAGTTG	TATTGGAACA	11220
AAGGCAGAGT	CCACATTTTG	GAATCCCGGT	TCAAGACAAG	GAGTGGCAAC	ATGAAGTCAT	11280
TCCAGAACCA	AAGGCATTG	ATGATCATGG	TTGTGCGATG	CATCGGTTTC	ATCAT'TGGGA	11340
AGATGATGCG	GAAATAGGTT	GTAAATTGAT	TAGCCCCATC	GATCTCTGCT	GCTTCATCCA	11400
GACTTTCTGG	AATCGAGATT	TTGATATAGC	CAACATAGAG	AAAGAGGGTC	TGTGGAATCG	11460
CATAGGTCAA	GTAGAGCAAG	ATCAAACCAA	AGGTATTAGC	CAAACCGAGT	TTACTCATCA	11520
TAACCGTAAT	CGGAATCATG	ATGACTTGGA	AAGGTACGAA	GATTCCGAGG	ATTAAGAGGG	11580
TATACATGAT	GGTAAAGGCT	TTTCTTTTAC	TCATATTGCG	AGCGATGGAG	TAGGCTGCCA	11640

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GAAAGCCAAA	GAAATTATCT	ACAATATCCT	TAGTGGGTTT	GAAGGAACTA	AAGAGGGTAG	11820
CAAGGAGCGG	CACTAAAATC	AGAACCGATC	CTAGAATCAA	TAGAATGTAT	TTGCCAATCA	11880
GGGCTTTTCT	TTCATCTTGT	TTCATCATGC	TTCTCCTCTT	AAATTTCAAA	TTTCTTAGAT	11940
ACTCTCAATT	GGATGATCGA	AATCACTACA	ATTAAGAAGA	ACAAGATTAC	GGCAATGGCA	12000
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CCACCTTTTA	GGGCTAGGAT	AAAGACCATA	GAGACACTTG	GTAGCAAGTA	AGGCAATTCA	12180
ATGTTCCAGA	AAACTTGCTT	GCTAGTCGCA	CCATCAATCC	TTGCTGCCTC	TGTAATCTCA	12240
GTTGGAATAG	ATTGCAAACC	AGCTAGGAAG	ATGATGATGG	GCATAGCCAC	CCCTTGCCAA	12300
AGAAGGACAA	AGACAGCCGC	AAAGATTGCT	CCCCACTTAG	TCCCTAAAAG	ACTGGTTTGG	12360
AAAAATTCAA	TATGAAGGGC	ATTTCCAATC	GCTGGAAGAC	CGTAGTTGAA	GACTTGCTTG	12420
AAGATCAAAG	CCACTGTCAA	ACCAGATAAA	ACAGCTGGGA	AGAAGAACCA	AGCACGGAAG	12480
AAGGTTTGGC	CTTTGATTTT	AGAATTCAAG	ACACGCGCAA	TGAAGATCCC	GAGTGCAATC	12540
TCACCAACCA	CCATGGCAAT	CGCAATGATT	GCGGTAAAGC	CAATCGCATT	CATGAATTTT	12600
GGATCCATGA	AGAGGAGCTT	AAAGTTGTTT	AAGCCAACAA	ATTTGTAGTT	ATAAGTCAAT	12660
CCTGTCCAGT	TGGTAAAAC	GTAAAAGGCT	CCTTGAAACA	TCGGCACATA	GAAGAAAATT	12720
GCTTGTAACA	AGAGGGGGAT	GACCACAAAA	GCCCATGCCC	AATATTTTGT	TAATACTTTT	12780
TTCATAGTCT	CTCTACTCCT	AATCCACATC	CGCTTTCATC	GGGTAAAGA	AGGCATTCAA	12840
ATCATTGACC	ATGCCTTGTT	TATCACCGGT	CAAGACATAG	TTCATGGTCA	AGGTATGGAA	12900
GTCTGCTTCA	CTGGTCCAGT	ATTGTTGCAA	CCAGACCAAG	TGACGATCCG	TAAAGGCATA	12960
TTCGGTCATA	CCAGCAAGCG	GTGAATCTTC	TCCTGCTTGT	TTGACCCCTT	CGATCGCTGT	13020
TGGAGATCCG	TCCACATCGT	AGTATTTTGT	CATGACTTCT	GGACGGGTCA	TATATPCCAC	13080
AAAGGCATTG	GCTTCTTTTG	GATGTTTGGT	GGTGGCTGAG	ATAGACCATG	CCAAGTCTCC	13140
CGCACCAACG	GTAAAGCTTT	GTCCTTTTC	TTTTCCTGGA	ATCATGAAGG	TCCCAATCTT	13200
AAAGTTCGGT	TTTTGTTCAT	TAATCGCTGT	GATCGCCCAA	GACCCATTTG	GTGTCATGAG	13260
GACATCCCCA	CGTGCGAAGG	CTCCGATAAC	ATCGGTATAG	CCAGCACCTT	CCCAGTTCTT	13320
TTGCTTAGAT	CCATTGATGC	GAAGGATGTC	CATGACCTTG	ATATCATCTT	TCATAATCGG	13380
ATCCGACAAT	TTAATGGCAT	TTGGTTGAGA	ATAACGAAGG	TATTGATTTG	CTTCTTTTCC	13440

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TTTCATCCCAG	GTTCAGGAA	CCTTCAAGCC	CAGTTCTTCG	AATTTATCTT	TGTTGTAGTA	13620
AATTCATAA	GCATTAGCTG	TAAAAGGAAC	GTTGTAAACT	TTTTCGTTTA	CAGCATATTT	13680
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CACATCTCCT	GCGAGAACGC	GTGTCTTCAA	TACTTCACCA	GCATTTGGTA	CATTGACGAC	13860
TTTGACCTTG	ATCTTAGGGT	TTTCCCTTCT	AAAATCACGA	GTGATTTCTT	CCAAGGTTTT	13920
GGTCATTTCT	TTTTTCTGGT	TGAAATACTC	GATGGTCACT	GTGCCATCCG	CAGATTTACC	13980
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TTTTTTATAC	CATTCCATTA	GAAAGCCTCC	TTTATAAAAT	TATACACCTT	TATTGAACTG	14100
CACCCCAAAA	GTTAGACAGA	ATAAATCTAA	CTTTTGGGGT	CAGTACATAT	CATAGTTTTTC	14160
TAAAAATATA	CTGTCTACTC	AAAAAATCTC	CTTGGGATAA	GATAACAGTT	AAGCCCGCAT	14220
ACATTAGTTC	TGCACCTGAG	TAAACTTCGC	CATTTTCCTG	TAATTTATAT	AGTCCCTCTT	14280
CATCCAAATC	TTTAAATTTT	AAAGTTGTTT	CCATGGTCTC	TACAACAGAT	AAAACGCGAA	14340
CGTAGGTAC	AATCGTTTGA	TTTCCGTAAT	TAAATTGTAC	AGCTGCTTCA	TTGGATACAG	14400
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GTCCCATCTG	ATGATTGCGT	ACTGCTGACA	CATGAGCCCC	CATAGAAATG	GTTGGATAGA	14640
GATAGGATGA	ACCGTATTGA	ATTGGTAAAC	GTGCAATGGC	ATCAGTATTA	TCACTAGCCC	14700
AGACTTGTGG	GAAATAGCGC	ATCATACCAA	GATCATTTTC	TCCACCACCA	CCAGAGCAGG	14760
ACTCAAAGAG	AATATGGCTG	TGCTTCTCTG	TCAGATAAGA	AACGAGTTCA	TAAAGCCCCA	14820
GCATGTACTG	ATGAGATTGC	ATCTGTGTCT	CTAGATAAGT	TAATCCATTC	CCTAGCTTAG	14880
TGATATTGCG	GTTCATATCC	CATTTAATGT	AATCAATATC	ATGATAAAAT	AGGAGTTGAT	14940
CTAAGACACT	TTTCAAGTAT	TCTACTACCT	GAGGATTGGC	AAGATTAAGT	ACTAATTGAT	15000
TCCGAGAATA	AGTATGCTCA	TAGCCAGGAA	CCTGAATAGC	CCAGTCAGGA	TGTTGACGAT	15060
ACAAATCACT	ATCTACAGAA	ATCATTTTCG	GTTCTAACCA	AAGTCAAAC	TGCAAACCTC	15120
TTTCATGGAT	AGCTGAAATC	AGACTTTCTA	GACTTCCACC	CAGTTTTTCC	TCATTAACAA	15180

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CCCAATCACC	TAAAGCACGA	TTATCATCAA	AACGATTGCC	AAACCAACCA	TCATCTAATA	15240
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GAAAGTCAAA	GTAAGTAGCT	TCCCAGTTAT	TGATTAGAAT	TGGACGTTCT	TTTTTAGAAA	15360
ATTCACTTAG	CATAATGTGC	TTCAGTACAA	AATTCTGACT	TTCATGACTA	ATACCAGTTA	15420
ATCCCTGATC	TGAATGAGTC	ACTAAAGCTA	CCGGTGTTTC	AAAGTATTCC	TCAGGAGCTA	15480
ACTTCCAAGA	AAAGTTTCT	GGATTAATGC	CAATAGCCAC	CCGAACCTCA	TTCAATTGAT	15540
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CAGCATCCTC	TGTGACTCCT	TGTTGCATA	GTAGAAGAGC	TGGTGTTTGA	GCATGACCAG	15660
AAGCACCTCG	GTTTGAACCTA	ATCGAAAAGA	TTCTTGTTC	TACCTGTTGA	CGTCTAACAG	15720
TCTTTTCACG	AGCATAAGCA	CCCTGCAGAG	TTACTATTTT	GTAATCTGCA	GCTGGAAAAT	15780
CAGCCATAAA	AGAAAAATCT	TTATGGATGA	CAACTTCCTG	ATTACTATTA	TTATCTAATT	15840
TACTGTAGCT	AGCAATAGTC	GCATCATTAT	TAAAAGTAGT	ATAATACAAA	GTCAGACTAA	15900
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GAGAAGGTAA	GCCCTGTGGA	CCATTCTGAC	CTTTTAAAT	CTTTGCTTCT	ACAAATCGAA	16020
AGTCTGTAC	TTCAAGTTACA	CTATGCTGAA	CCTGTATGGT	TGGTTTCCTA	AAATCTCCTA	16080
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CCTCATCACT	TTATTGATTA	TATTTTATCA	CCTGAAATCG	CTTTCCAAA	TAGAAAAATG	16380
TCTCAAGAAT	ATGGTAAAT	GTTAGGTAGG	AGGTAGCACA	TGTTAGTTTT	TTCAGAATAC	16440
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TACTCTTTTG	GTCCAGCCAT	TCGTGATACA	TACGTCTTAC	ATTACATTAC	TAAAGGACAA	16560
GGAAAATTTT	ATTACAAGGG	TAAAATTGTT	GATTTAAAAG	AAGGAGATT	CTTTCTATTA	16620
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TTAGGAATCA	CTGGAGGGAA	AGCCCCTGAT	TATTTTGCTC	TTTCCCAAAT	TTCTGATCAA	16740
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CAACTTCATG	AACTGATGTT	TCATCTGGGA	ACTATTGCTC	CCAATCAGAA	AAAAAAGAAT	16920
ATTTTCATCAA	CCCACCAACT	CTATCTTGAA	TGCAAACGAT	TAATTGATAG	CCACTATCCT	16980



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CAATCACTTA CAATTCAAGA TTTAGCAAAA GAACTATCCG TTCACAGAAG CTA CTTATCA	17040
AGCGTATTCA AAGAATTTAA TACCTTATCA CCCAAAGAAT ACCTACTCTA CGTTCGAATG	17100
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CCAAGTCATA CAAGAAAAGA ATACTCTCAA TACCAACTAG TAAGAAAGGC AACATTATGA	17280
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AAATCGCAGA AAAACTATCC CTAAGCCGAA CAGCAATTTG GAAAGCCATC AAGCGACTAG	17400
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ACCTTATTCT TCCAGAGATT CTAGAAGAAA ATCTTCCAAT TAAAGTCAGC TTTAAACCCG	17520
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CCCTCTATCT AGCTTCCTAT CAAACAGCAG GCCGAGGCCG TTTTCAACGT TCCTTCTACT	17640
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TACCATCCTA CACACTACTT GTAGCTGGAG CTGTCTACAA AGCCATTAAG AACCTAACTT	17760
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GCTTATTTAA AGCTACAGCT CCTATAACAA GGAATGAATT GATCATAGAA ATCTGGCGTG	18000
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TCTCAGAAAA TGGAAAACCT TTAGTTCAAT GTGATAACGG AAAAGAAATC TGGCTAAATA	18180
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TAAAAATAAA AAAGAGAGTT ACAGACTCTC ATTAAGACGG AGAATAAGGG ATTCTGAACCC	18360
TTGCGCCAGT TACCCGACCT AACGATTTAG CAAACCGTCC TCTTCAGCCT CTTGAGTAAT	18420
TCTCCAATTA ATGGGCACGA GTGGACTCGA ACCACCGACC TCACGCTTAT CAGGCGTGCG	18480
CTCTAACAC CTGAGCTACG CGCCCAAGTT AAAAAGCTTG GTAATTTGAA CAAAGTTCAA	18540
AGCGGGTGAC GAGAATCGAA CTCGCGACAA CAGCTTGGA GGCTGTAGTT TTACCACTAA	18600
ACTACACCCG CATAAATACT ATCAATAAAA TGGCGCGAGA CGGAATCGAA CCGCCGACAC	18660
ATGGAGCTTC AATCCATTGC TCTACCAACT GAGCTACCGA GCCTTATTGC GGGAGCAGGA	18720

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TTTGAACCTA CGACCTTCGG GTTATGAGCC CGACGAGCTA CCGAGCTGCT CCATCCCGCG	18780
TTAATAATAT AAAAGGAGGA TGTGGGATTC GAACCCACGC ACGCTTTTAC ACGCCTGACG	18840
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AACCGGACGC TCTAGCCAGC TGAGCTACAC CGCCATGAAT CGGGAAGACA GGATTCGAAC	19080
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CGCGACCCTC TGATTACAAA TCAGATGCTC TACCAACTGA GCTAAGCCGG CTCATTTGTT	19500
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TGACCCATTG ATTTAAAGTC AATTGCTCTA CCAACTGAGC TAACGAGTCT AAAATAACTT	19680
GCGTTACCTT AAACGGTCCG ACGGAATCGA CCCGGTAC	19718

## (2) INFORMATION FOR SEQ ID NO: 100:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4117 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 100:

CCGTGGAAAA GTCTGGATAG TGAATGGTCT TCACACAATG ACCTGAAAGA AGCCTGAGAA	60
TAATTATGGA GAGTAGCATT CTGAGAGGTG TTAGCAGAAC CATATGACAG AGCTGTTTGA	120
AGAGGGAATA TTGAGGAGAA AAATCCTGAG CCTACCAGTT GGAGTTGGAA AGAGCTGACT	180
GTTAGATCAT GGTTTATTAT CCACAACCTG TGGATAACTT TGTGAATAAG AGAAGTTGCT	240
AAAGAAGGAG ATATATAACG ATGAAGAAAA TCAAACCGCA TGGACCGTTA CCAAGTCAGA	300
CTCAGCTAGC TTATCTGGGA GATGAACTAG CAGCTTTTAT CCACTTCGGT CCTAATACCT	360
TTTATGACCA AGAATGGGGG ACTGGACAGG AGGATCCTGA GCGCTTTAAC CCGAGTCAGT	420

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TGGATGCGCG TGAGTGGGTT CGTGTGCTCA AGGAAACGGG CTTCAAAAAG TTGATTTTGG	480
TGGTCAAGCA CCACGATGGC TTTGTCCTTT ATCCGACAGC TCACACAGAT TATTCGGTTA	540
AGGTCACTCC TTGGAGGAGA GGAAAGGGCG ACTTGCTCCT TGAAGTATCC CAAGCTGCCA	600
CAGAGTTTGA TATGGATATG GGGGTCTACC TGTCACCGTG GGATGCCCCAT AGTCCCCTCT	660
ATCATGTGGA CCGAGAAGCG GACTACAATG CCTATTATCT GGCTCAGTTG AAGGAAATCT	720
TATCAAATCC TAACTATGGG AATGCTGGTA AGTTTCGCTGA GGTTTGGATG GATGGTGCCA	780
GAGGAGAGGG CGCGCAAAAAG GTTAATTATG AATTTGAAAA ATGGTTTGAA ACCATTTCGTG	840
ACCTGCAGGG CGATTGCTTG ATTTTTTCAA CAGAAGGCAC CAGTATCCGC TGGATTGGCA	900
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CAGAAGCAGA GCTGAATAT CTTCAGCACG GGGATCCCTC GGGCAGGATT TTTTCAATCG	1020
GAGAGGCAGA TGTTTCCATC CGTCCAGGCT GGTTCCTACCA TGAGGATCAG GATCCTAAGT	1080
CTCTCGAGGA GTTGGTCGAA ATCTACTTTC ACTCAGTAGG GCGAGGAACT CCACTCTTGC	1140
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GCTCTTGGGC AAGCGATGCA GACTTGCCCA TCCAGTTAGA ACTCGACTTA GGTTCTCTTA	1380
AAACTTTTGA TGTAATTGAG TTAAGAGAAG ATTTGAAGCT AGGGCAACGA ATCGCTGCTT	1440
TTCATGTGCA AGTAGAGGTG GATGGTGTCT GGCAGGAGTT TGGTTCGGGT CATACTGTTG	1500
GTTACAAACG TCTCTTACGA GGAGCAGTTG TTGAGGCACA GAAGATACGT GTAGTCATTA	1560
CAGAAACACA GGCTTTGCCT TTGTTGACCA AGATTTCCCT TTATAAAACT CCTGGATTAT	1620
CAAAAAAAGA AGTTGTTTCA GAACTAGCAT TTGCAGAAAA AAGCCTAGCT GTGGCAAAGG	1680
GAGAAAATGC CTATTTTACA GTTAAGCGCA GAGAATGTAG TGGTCCTTTA GAAGCTAAGA	1740
TTTCGATTCA ACCGGGGACA GGTGTCCATG GTGTCGCCTA TCAGGATGAG ATTCAAGTCC	1800
TTGCGTTTCA AACTGGTGAG ACTGAAAAAA GTCTGACGCT ACCAACCTTG TATTTTCGAG	1860
GAGATAAAAC CTTGGATTTC TATCTGAACC TAACGGTGGA TGGTCAGCTT GTGGATCAAC	1920
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TAGTGACTTG GTAACCAGCT GAGGGTGAAA GTTAGTTGTT CAGCTTTTAA GAGGTCTTGG	2040
TGTTGAATAG TTGATACGAG TGTTTGTCC AGTCGCGATT CTTTGACAAA GTTAAATGG	2100
TTGTGGTTTT GTTTAGTATG GATATCCAGC CATTTATCTT CTTTAGCGAG GTAGACTCGT	2160

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AGATGGTCAA	AGAGAGGGAT	TCCGAGGTCA	TAGCTTGGTT	TTCCTGGACA	GGTTGGATAA	2220
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TAGGCTTCCC	AACCTGGGTG	AAAAGCTTTC	TGACGGAGCG	TCTTGATAAG	AAGGGCAGTG	2340
TAGTCAGGGT	AATCGCTGTA	ACGGAAGAGA	TAAGGAATGT	GGAACTAGG	CTGGTTGGAA	2400
ATGGCTATTT	GTCCAAAAGG	AGCAGTAGCC	ATCTCGCTCA	TTTCGTGAAT	TTCGTAACCA	2460
TAGCCTGTTG	TTTCAAAGAG	GGGAGCATCT	TGACAGGCTT	TCAAAAGATA	GTTGCTAAAG	2520
GTTTCTTTTC	CACCCATCAG	TTGGATTAAG	CCAGGGATGT	CGTGGAGAAC	GCCTAAAGTA	2580
GCTTGAATGG	CAGAGCATTC	AGCGTAGTCT	CGCCCCAAC	TATAAGGAGA	GAAGTCAGGG	2640
TGAAAGTTTC	CTTGATTGTC	TCGTGCTCGC	ATGTAACCTG	TCTCAGCGTC	AAATAGCTGG	2700
CGGTAATTTT	GTGAAGCAGC	CTTGTAGGTT	TCAGCGATTT	CTATGTTCTC	TAGTTTTTTG	2760
GCACAGCTGG	CGATACAAAA	GTCACTATAG	GCATAGTCTA	GAGTATGGCT	AACACTTTTCG	2820
TGGTGGTCGG	TAGAGAGGTA	ACCTAGTTCT	TGGTATTGGG	CTAGTCCGTG	GCGGCCATTG	2880
ATGCCGAGAG	GGTCGGCTTT	GCTGGCTGTT	TCGAGCATGG	CTTGAAGAG	TTCTCCTTCT	2940
AGGTCGGGGG	TCATGTCCTT	GCAGGCGCTA	TCTGCGATAA	TACCGTCTAA	AAGTGACCT	3000
GGCATCATAC	CCCGTTCATC	TGGAGCCAGC	CATTTTGGAA	GGAAACCAGT	ATCGCGGTAG	3060
CTATTGAGGA	AACCTTCTAA	AAAGCGTTGA	TAGTGCTCCG	GTATGATAAG	GGCAAAGAGG	3120
GGGAAGGTGG	TGCGGAAGGT	ATCCCAGAAA	CCATTGTTGC	TAAAGAGGAC	ACCAGGCTTG	3180
ACAGTACCAG	TAGCCAGATC	CATGTGGATG	GCTTGCCCTG	ATTCATTAAT	CTCATAAAAA	3240
GTCTGTGGGA	AGAGGAAGAG	TCTGTAGAGG	CAGTGGTCAA	AGAAGGTTCG	GTCAGCCTCT	3300
CCTGTCTCTA	TAATGTCAAA	ACGATGGAGG	AGATTTTCCC	AATCCACTTG	GGCACTTGAT	3360
TTACAGCTAT	CAAAATCTTC	TTGAGGTAGA	TTGATTAGAG	CTTGAGAAGG	AGAGATGAAA	3420
GAAGTGGCTA	GTTGCATCTC	GGTTTGACTA	CTTGCTAAGT	CAATTCGCCA	GTCTCCAGCT	3480
TCTTGGCTGA	TAGCAAGAAT	ATCCGTGTTT	ATTTGCAGGG	CAGTGAACAT	CGTTAGCGAA	3540
TTTTTGTTAG	TTTCAGTTTT	ACCTTCTTGT	CGCAGGGCAA	GAGTCCGCTT	ATCTACTTGC	3600
TCTACTGTCA	GTTTCATCTG	TGCGTGAAGA	TAGAGGGAGA	GGGCTTTGCC	TTGCTTTTGA	3660
TTCAAACGAA	TAGAAGCACC	ATAGCAAGTC	GGTGTGAGCT	GGGTTTCAAT	CTGATAACGC	3720
AGAGAAAAGA	GCTTCAAATA	GTGAGGCTGG	AAGCAAGCTT	TATCTATATC	ATAAGAAGAC	3780
TGGCGGTGAA	AGAGGCTGTC	TCCCCCAGT	TGACTGGTGA	CAGGTGTCAG	AAGGAGCCAA	3840
GAGTAGTCCC	CAATCCAAGG	ACTGGGCTGG	TGAGTTAATC	GAATCCCCTG	AAAGATAGGC	3900
AGATGTGGAT	CAAAAAACCA	AGATCCATCC	TGGTCACTGG	TCTGGGGCAC	AAAGTAATTC	3960

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ATCCCAAAAG GCACGCCTGT GTATGGCAGG GTATTTCCCC GAGAAAAGGC ATGCTTGTG	4020
GTAGTTCCAA AACGGGTATC GATGGTATCA AGTAGTGGTT TCATAGTCTT TCCTTTAGCT	4080
GTTTTTCTAC ATTATATCAG TAATAGAGGG CCTTTAG	4117

(2) INFORMATION FOR SEQ ID NO: 101:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2727 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 101:

CTGGTTCAAT TATTATTCAC TCTAAGTAGT CATATGTTCT TTATTTATGT GAGTTTTTAC	60
CTTTTAAAGG ATCTTGTTAG ATGGGAGAAG GTTTTAAAAG TGACAGATGA TAATACAAGA	120
AAAGTTCGTT TATTAGTAGC CTTTTTTAGC ATTGTCATAG GCTACATCCT GAGTTCTTTC	180
TTTATTAGCC TGTATCATTT GTGGCAAGAA GCGCTTAGAG GATTATTATG AAATCAAGAG	240
TAAAGGAAAC GAGTATGGAT AAAATTGTGG TTCAAGGTGG CGATAATCGT CTGGTAGGAA	300
GCGTGACGAT CGAGGGAGCA AAAAATGCAG TCTTACCCTT GTTGGCAGCG ACTATTCTAG	360
CAAGTGAAGG AAAGACCGTC TTGCAGAATG TTCCGATTTT GTCGGATGTC TTTATTATGA	420
ATCAGGTAGT TGGTGGTTTG AATGCCAAGG TTGACTTTGA TGAGGAAGCT CATCTTGTCA	480
AGGTGGATGC TACTGGCGAC ATCACTGAGG AAGCCCCCTA CAAGTATGTC AGCAAGATGC	540
GCGCCTCCAT CGTTGTATTA GGGCCAATCC TTGCCCCTGT GGGTCATGCC AAGGTATCCA	600
TGCCAGGTGG TTGTACGATT GGTAGCCGTC CTATTGATCT TCATTTGAAA GGTCTGGAAG	660
CTATGGGGGT TAAGATTAGT CAGACAGCTG GTTACATCGA AGCCAAGGCA GAACGCTTGC	720
ATGGTGCTCA TATCTATATG GACTTTCCAA GTGTTGGTGC AACGCAGAAC TTGATGATGG	780
CAGCGACTCT GGCTGATGGG GTGACAGTGA TTGAGAATGC TGCGCGTGAG CCTGAGATTG	840
TTGACTTAGC CATTCTCCTT AATGAAATGG GAGCCAAGGT CAAAGGTGCT GGTACAGAGA	900
CTATAACCAT TACTGGTGTT GAGAACTTC ATGGTACGAC TCACAATGTA GTCCAAGACC	960
GTATCGAAGC AGGAACCTTT ATGGTAGCTG CTGCCATGAC TGGTGGTGAT GTCTTGATTC	1020
GAGACGCTGT CTGGGAGCAC AACCGTCCCT TGATTGCCAA GTTACTTGAA ATGGGTGTTG	1080
AAGTAATTGA AGAAGACGAA GGAATTCGTG TTCGTTCTCA ACTAGAAAAT CTAAGAGCTG	1140
TTCATGTGAA AACCTTGCCC CACCCAGGAT TTCCAACAGA TATGCAGGCT CAATTTACAG	1200

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CCTTGATGAC AGTTGCAAAA GGCGAATCAA CCATGGTGGG GACAGTTTTC GAAAATCGTT	1260
TCCAACACCT AGAAGAGATG CGCCGCATGG GCTTGCATTC TGAGATTATC CGTGATACAG	1320
CTCGTATTGT TGGTGGACAG CCTTTGCAGG GAGCAGAAGT TCTTTCAACT GACCTTCGTG	1380
CCAGTGCGGC CTTGATTTTG ACAGGTTTGG TAGCACAGG AGAAACTGTG GTCGGTAAAT	1440
TGGTTCACCT GGATAGAGGT TACTACGGTT TCCATGAGAA GTTGGCGCAG CTAGGTGCTA	1500
AGATTCAGCG GATTGAGGCA AGTGATGAAG ATGAATAAGA AATCAAGCTA CGTAGTCAAG	1560
CGTTTACTTT TAGTCATCAT AGTACTGATT TTAGGTACTC TGGCTCTAGG AATCGGTTTA	1620
ATGGTAGGTT ATGGAATCTT GGGCAAGGGT CAAGATCCAT GGGCTATCCT GTCTCCAGCA	1680
AAATGGCAGG AATTGATTCA TAAATTTACA GGAAATTAGG CTGGAGAACC AGCCTTTTTC	1740
TAAAGATAAG GAGAAATATG AACAAAAAAA CAAGACAGAC ACTAATCGGA CTGCTAGTGT	1800
TATTGCTTTT GTCTACAGGG AGCTATTATA TCAAGCAGAT GCCGTCGGCA CCTAATAGTC	1860
CCAAAACCAA TCTTAGTCAG AAAAAACAAG CGTCTGAAGC TCCTAGTCAA GCATTGGCAG	1920
AGAGTGCTTT AACAGACGCA GTCAAGAGTC AAATAAAGGG GAGTCTGGAG TGAATGGCT	1980
CAGGTGCTTT TATCGTCAAT GGTAATAAAA CAAATCTAGA TGCCAAGGTT TCAAGTAAGC	2040
CCTACGCTGA CAATAAAACA AAGACAGTGG GCAAGGAAAC TGTTCCAACC GTAGCTAATG	2100
CCCTCTGTGC TAAGGCCACT CGTCAGTACA AGAATCGTAA AGAACTGGG AATGGTTCAA	2160
CTTCTTGGAC TCCTCCAGGT TGGCATCAGG TCAAGAACTT AAAGGGCTCT TATACCCATG	2220
CAGTCGATAG AGGTCATTTG TTAGGCTATG CCTTAATCGG TGGTTTGGAT GGTTTTGATG	2280
CCTCAACAAG CAATCCTAAA AACATTGCTG TTCAGACAGC CTGGGCAAAT CAGGCACAAG	2340
CCGAGTATTC GACTGGTCAA AACTACTATG AAAGCAAGGT GCGTAAAGCC TTGGACCAAA	2400
ACAAGCGTGT CCGTTACCGT GTAACCCTTT ACTACGCTTC AAACGAGGAT TTAGTTCCCT	2460
CAGCTTCACA GATTGAAGCC AAGTCTTCGG ATGGAGAATT GGAATTCAAT GTTCTAGTTC	2520
CCAATGTTCA AAAGGGACTT CAACTGGATT ACCGAACTGG AGAAGTAACT GTAACCTCAGT	2580
AAAAGATACG CCTACACTCC TATGTCACCT ATGGATGTAG GAGTTCTTTT TACTAGTTTA	2640
AGCAGGACTA AGACAGGTAC TAAGACAAAA TAGCAACTTC TAAACTAAC TTCCAGTTTT	2700
GGGAGAGAGA TGGAAGTTAC TTTGAGA	2727

(2) INFORMATION FOR SEQ ID NO: 102:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 5717 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 102:

TTTTTTGTAG ATTTAAGTGG GGTGCAATTC CTAAAAAATA AAAAACAATT TTTGAAAATT	60
ATGTTAGCAG GAATTGCTTC AAATTCGATT TTATCACTTA CAGGTTTACT TGTTTTATTG	120
TTCACATCGT ATAAATTGCT TGGACTCTTA TTTTTTATCA TTAACCTAGG TATGATTTTT	180
ATTAATCAA TTCCTTTTTT TCAGTATGAT AGTGGTATTA TTTTAAGATA CTTGAATTCT	240
AACAATAATA ACTTGAATTT TCAATATATA GTTCAACTTT TAATAGCATT TGTTATTATT	300
TATTTTCCTT TGAGTCAACT ATTACAGTTT TTGACACCCA ATATTATTGT TCGTAGTATA	360
GGAGGGGTGG TGTTTCTAT ACTGCTTTCT ATATTATATA TGATAGGAAG GACGAAATAT	420
GTTCTACGTA AATAGTTATG TTTTGTCTTA TAAAAAGAA GGTATAATGT ATTTACGTGG	480
TCGGAGTATG CGGGAATAG CTATAGAACC TCAAATTTCTG CAAGAATTTA TCAACGATCT	540
ATTTAATAGT TGTAAGGAAC TATTAGAGAT AGAAGAAGTA TTAGGCAGTA AACTAACATT	600
TGAACATAAA ATGAACAAAT TTTAATTTCTG GATGAGATAG ATATTGATAG TAGATATTCT	660
AGAACTAAAG GTTACTATTC GTTATTTTAT AATGAAGAGT ATAATAAAAT ACAGAATAAA	720
ACAGTATTAG TATTAGGAGC AGGAGTCTTA GGATGTTATA TATCTCTAAG TCTAAGTATG	780
TATGGAGTGA GGAAACTTAT TGTGCTGAT TACGATATAA TAGAACCATC AAATTTAAAT	840
AGGCAAATTC TTTATACAGA GTCGGATGTT GGTAAGGAGA AGATTAATGT TCTTTCTGAA	900
AAAATACACA AGTATAATTC AGATGTTTCTG GTAGTACCTA TTTCTATTAA AGTTTCTTCA	960
GTAGAAGAAT TAGAAAAAAT TGTTCGGAA TATGGGAGTA TAGATTTTAT CGTTAAAGCA	1020
ATTGATACGC CCATTGATAT TATAAAAATT GTCAATCAAT TTGCTGTATC GCATAAGATA	1080
TCCTACATAT CAGGAGGGTT TAATGGATGC TATCTTATTA TTGATAATAT ATATATCCCT	1140
ACCATCGGTT CTTGCTTTGG TTGTCGGAAT ATAAACAAAG ATATAAATAA GTACACTTTA	1200
TCTGATAAGA CAAAGTGGCC GACTACACCA GAGATGCCTG CTATTTTGGG AGGGATAATG	1260
ACTAATTTAA TAATTAAAAT ATTTCTGGGA TGTTATAATG AAATCCTAAT AGATAACGCT	1320
TACGTTTATA ATATGAGAAA TCATGCTCTA AGTCAAGAAA AATATGTCTT GGAAAACGGA	1380
GAATGTCCAA TTTGTAAAAA AATAATAAAG TGAAAGATAA CAATATTAGA GCGAAAACAT	1440
TTATTCGTTT AGTTTGTTTT TGCTTATTAT CAGGAGGAGT AGCTTTTTTA TCTGCTATTG	1500
GGCAGTTCAC TGTTATAGAA ACACAATTAA TAGTATTGTT CTTGGGTATT ATTTTGTCTA	1560
TATATTATGC TTAACAAT AAAAATATTC AAACATCATT GGAAAATATA GTATGGCTTT	1620

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TTTCATCGTT TGAGATTTTA TTTTGTCTTG TTAATTTTAG AACATTTATT CAGTTACCAG	1680
TGGATATTTT TATTGGTATG ATAATATTTT TAATGCTGTG GATATTTATT ATGTTAGGTA	1740
TAGTGTGTCT TAGTTATTAT ATAACTTTAT TATTTAGCAA GGAGGCTTAG TATGTTTAAA	1800
AAAATAGGTA TAATGAGCAT TTGCATATAT ATAATTATTT TATACTGCTT GAGAATGTAT	1860
CGTATTATCA ATAATATTGA AACAACTCTG CTAACGGTTA TATGCTTAAT GTTATTGTTT	1920
TTTTTAAGAC GTTTATTTGA TAAAGATAAG TAAATAGATG TTAAGTAAAA ATGTAGAATA	1980
TAAAGGAGGT GCAATGAGTA TGATTGAAGT TAGCCATTTA TCAAAAAGTT TTGGTGATAA	2040
AATAGCTTTA AATAATATAA GCTTCACTGT TAAAGAAGGT TAGATTTTTG GATTTTTAGA	2100
ACCATCTGGT TCTGGAAAGA CCACAACGAT TAATATTCTG ACTGGGCAGT TCCTTGCCGA	2160
TAAAGGACAA TCTATTATTT TGGGACAAAA ATCTCAAAAT TTAACAAGCG GTGAATTAAA	2220
GAGAATTGGA TTGGTTAGCG ATACAAGTGG ATTTTATGAG AAAATGTCTC TGTATAACAA	2280
TCTTCTTTT TATAGTAAAT TTTATAATAT TAGTAAATCA CGTGTGATA ATTTGTTAAA	2340
GCGAGTAGGA TTATATGATA GTCGCAAGAT GGTAGCAGGA AAATTATCCA CTGGAATGAG	2400
GCAACGAATG CTTTTCAGCAC GAGCTCTTAT CAACAACCCC GCTGTACTCT TTCTGGATGA	2460
ACCGACCTCA GGTCTAGATC CCACAACCTC TCGAACAATT CATGAGTTAA TTTTAGAATT	2520
GAAAACAGCA GGGACAACGA TTTTCTAAC GACTCATGAT ATGAATGAAG CAACTCTTTT	2580
ATGTGATTAT GTTGCTTAT TAAATAAAGG GAAATTAGTT GAGCAAGGAG CTCCTTCTGA	2640
ACTCATTCOA AGATATAATA AAGATAAAAA GATTAAGGTT ACAGATTATA ATGGGAATCA	2700
GATAACTTTT GATTTTACAT CACTAGAACA GGTATCTCAG ACTGATCTGG AAAATATTTT	2760
TTCAATTCAT TCATGTGAGC CTACTTTAGA AGATATTTT ATCACATTAA CAGGAGGAAA	2820
GCTAAATGCT TAAACGGTTT CTGGCTTTGG TATGGTTGCG TTGTCAAATC ATCCTTTCCA	2880
ATAAGAGTAT TTTATTGCAA GTTTTAGTGC CTTTGTGCTT CACATATTTT TATAAATATC	2940
TTATGGAAAC ACAGGGGAAG GTCAACGATC AACAGGCATT AGTTCTTTTG ATGATGTGTT	3000
TACCTTTTTC TTTTCTTTG GCTGTGGAA GTCCTATAAC TATTATCTTG TCTGAAGAAA	3060
AAGAAAAGTA CAATTTACAA ACTCTTCTGT TGAGTGGTGT TAAAGGCTCC GAATACATTT	3120
TATCAACTAT GTTCTTCTCT TTTTGTCTAA CTTTGTGAT TATGGGAAC ACTCCTCTTA	3180
TTTTAGGAGT TACAATTGTA CATACTTTTA ATTATATTAC AATCGTTCCT CTAACCTCTT	3240
TATCCATCAT TTTATTCTAT TTATTGATAG GTTTAACCGC GAAGAGCCAA GTAGTAGCTC	3300
AGGTATACAG TCTTCCTGCT ATGATTTTAG TTGCTTCTT ACCGATGCTA TCTGGTTTGG	3360
ATAAGACAGT TGCGAAGATA ACAGATTATA GTTTTATGGG ACTATTTACT AAGTTTTTCA	3420



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CAAAATGGGA GGAATTTTCA TGGAATAAAA CTCTAATTCC TAATCTAACA CTACTTATTT	3480
GGATTGTTCT TCTATTAACT TTAATTACGA TAACTATTAG GAAAAAGAAA ATTTCTTAAT	3540
TGAGTTATTT TAATGATTAT AAACACAAGT GGGAAGGAAA AAATGAACTG ATCTTTTGA	3600
CAGCAATTCCT ACAGAATAGT CTTATTGCTA TATTTTGATT TGAGTGTACG AAAAAAGAAA	3660
AATAACAATA GTGCTCATAC TAATTGCAGA AGTTTGGGT GATAAGATAA CTGATAAATT	3720
GCAATAAAAA ATGCAACATT TTAAATCTC CTCTATAAGT GCTTCAAAA GTGCTTCAAA	3780
ACCTGTCTTG TAATCCAAGT ATTTTGGGG ACGGTGATTA ATAAGCTAGC AAAGCATCAT	3840
TAAGGATTTT TTCGGTAATT GTTGCCAAAT CGGTTAAGA AAATACTCAC GAAGAAGTCC	3900
ATTCGCATTC TCATTACTTC CCCTTGCCA AGATGAATAG GCATCCGCAA AATAAACAG	3960
AATCCCATTT TGTCAATTA AAGGTAACA AGCAAACCTCT TTTCTCTGT CCGAAGTGAA	4020
AGTCTTTAAC TATTCTTTTG GAAAGAGTCT TGTGAGGTGT TCAATAGCAG TCAACATGGA	4080
TTTAGCTGTT TTTACTTGAC AAGTGCTAGT AGAAATAATA GAATAGTAAA AAACCTTTAA	4140
AGCAGTCCAG AGAGGCAGCT AAGGTTAGAC GGTGAAAGGG TGGAGACTAC CCATTTTTCG	4200
TGGAACCTTG CTGTTGGCAG GTTCCTTTTT TCGTGGCTTC TGTTGGCCAG ACTCTCTCAC	4260
TAGTAAAGGT AAAAGGAGAA ACCTATGCGA GAACATCGTC CAATCATTCG TCTTGATTTT	4320
CCTAGTTTTG AGGCGGTCAA GGAATTTTTA GCTCTTTTCC CAGCAGAAGA AAGCCTTTAT	4380
CTCAAGGTAG GGATGGAGCT TTATTACGCA GCGGGGCCTG AGATTGTGTC CTACTTAAAA	4440
GGTTTGGGTC ATAGTGTCTT TTTGGATCTC AAACCTTCATG ACATTCCTAA TACAGTCAAG	4500
TCAGCCATGA AGATCTTGTC TCAGCTTGGT GTCGATATGA CTAATGTCCA TGCGGCTGGT	4560
GGTGTAGAGA TGATGAAGGC GCGCGGTGAA GGTCTTGGGA GTCAAGCCAA ATTGATCGCT	4620
GTAACCTCAGC TCACATCAAC GTCAGAAGCT CAGATGCAGG AGTTTCAAAA TATCCAAACC	4680
AGTCTGCAAG AGTCTGTGAT TCACTATGCC AAGAAGACAG CTGAAGCTGG CTTGGATGGT	4740
GTTGTTTGCT CGGCTCAGGA AGTACAAGTC ATCAAGCAGG CTACCAATCC AGATTTTATC	4800
TGTCTGACAC CAGGGATTCG TCCAGCTGGT GTTGCAAGTG GAGATCAAAA ACGAGTCATG	4860
ACACCTGCTG ATGCCTATCA AATCGGCAGT GACTATATCG TAGTGGGACG TCCCATTACC	4920
CAAGCTGAGG ATCCTGTGTC AGCTTATCAT GCCATCAAGG ATGAATGGAC ACAGGACTGG	4980
AATTAAAGAA CTAGATTAGA AAAATAAAAG GAGAATACCA TGACACTTGC TAAAGATATC	5040
GCTAGCCACC TCTTGAAAAT CCAAGCCGTT TACCTCAAAC CAGAGGAACC CTTCACTTGG	5100
GCATCTGGTA TCAAGTCACC GATTTACACT GATAATCGTG TGACACTAGC CTATCCAGAA	5160

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ACTCGTACCC TAATTGAAAA TGGTTTTGTG GAAGCTATCA AAGAAGCCTT TCCTGAAGTA	5220
GAAGTGATTG CAGGAAGTGC AACAGCAGGG ATTCCACACG GAGCCATTAT TGCTGATAAG	5280
ATGGACTTGC CTTTTGCCTA CATCCGTAGT AAACCAAAAG ACCACGGAGC TGGTAATCAA	5340
ATCGAAGGTC GCGTAGCTCA AGGTCAAAAA ATGGTAGTGG TTGAAGACCT TATTTCAACG	5400
GGTGGTTCAG TTCTTGAAGC TGTAGCAGCA GCCAAGCGAG AAGGAGCAGA TGTACTTGGA	5460
GTTGTAGCGA TTTTCAGCTA CCAATTGCCA AAAGCAGATA AGAACTTTGC AGATGCTGGT	5520
GTTAAACTTG TGACGCTTTC AAACATAGC GAGCTTATCC ATCTAGCCCA AGAAGAAGGT	5580
TACATCACGC CAGAGGGCCT TGATCTTCTA AAACGCTTTA AAGAAGACCA AGAAAATTGG	5640
CAAGAAGGTT AGGTCAGTAA GATAAAGAGA GACGAGGCTA CCGAGTCTCT TTTACCATTT	5700
TATTTAAAAAT ATGACAG	5717

(2) INFORMATION FOR SEQ ID NO: 103:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5558 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 103:

CCTGGACTTT CTAAGATGAA ATCTTGCGAC CTGGATCAAG CCCTTCATGA GCATTTTTC	60
GAAGAAGAAT TAGCTGGTCA CTTTCATGTC CTTCTATGGA CTTTTTTTAC AATGGCATTG	120
CTATCACACC CAATACCTAT CTAAGCGCCT GTTTCGTAAA CTTTATTGCA GCTCTTCCTC	180
TAAATTCCTT AATTGTTGAA CCAATTGCCC GTTTTATACT AAGTTCTTTT CAGAAACCAT	240
TTACTGGGGA AGAAGTTGAA GATTTTCAAG ATGATGATGA AATCCCAACT ATTATCTAAG	300
CCAGTTCTGT AAACCTACTA TATTTGAAAT CCACTTCCTT TTAGGGTGCA ATGGTTATAA	360
ATGAATTTTT GAGAGGATCA GAATGAAAAA ACTAGCAACC CTTCTTTTAC TGTCTACTGT	420
AGCCCTAGCT GGGTGTAGCA GCGTCCAACG CAGTCTGCGT GGTGATGATT ATGTTGATTC	480
CAGTCTTGCT GCTGAAGAAA GTTCCAAAGT AGCTGCCCAA TCTGCCAAGG AGTTAAACGA	540
TGCTTTAACA AACGAAAACG CCAATTTCCC ACAACTATCT AAGGAAGTTG CTGAAGATGA	600
AGCCGAAGTG ATTTTCCACA CAAGCCAAGG TGATATTCGC ATTAACTCT TCCCTAAACT	660
CGCTCCTCTA GCGGTTGAAA ATTTCTCTAC TCACGCCAAA GAAGGCTACT ATAACGGTAT	720
TACCTTCCAC CGTGTCATCG ATGGCTTTAT GGTCCAAACT GGAGATCCAA AAGGGGACGG	780
TACAGGTGGT CAGTCCATCT GGCATGACAA GGATAAGACT AAAGACAAAG GAACTGGTTT	840

771

CAAGAACGAG ATTACTCCTT ATTTGTATAA CATCCGTGGT GCTCTTGCTA TGGCTAATAC	900
TGGTCAACCA AACACCAATG GCAGCCAGTT CTTCATCAAC CAAACTCTA CAGATACCTC	960
TTCTAAACTC CCTACAAGCA AGTATCCACA GAAATTTATT GAAGCCTACA AAGAAGGTGG	1020
AAACCCTAGT CTAGATGGCA AACACCCAGT CTTTGGTCAA GTGATTGACG GTATGGATGT	1080
TGTGGATAAG ATTGCTAAGG CCGAAAAAGA TGAAAAAGAC AAGCCAATA CTGCTATCAC	1140
AATCGACAGC ATCGAAGTGG TGAAAGACTA CGATTTTAAA TCTTAAAAAC CAAAAAATA	1200
CAGTATCCAC ATTCGGTACT GTATTTCTTT TACTCTCATT CTTAAGTTAA ATTATTAAAA	1260
TCCCATATTT GGTCTATCCA GCCTTCATAA AAGTCTGGCT CGTGGCAGAC CATAAGGATA	1320
GATCCCCTAT ATTCTTTGAG AGCGCGTTTG AGCTCATCCT TTGCATCCAC ATCCAAATGG	1380
TTGGTCGGCT CGTCCAGCAC TAAAACGTTG TTTTCACGAT TCATCAAGAG ACAGAAACGA	1440
ACCTTGGCTT GCTCTCCCC TGATAAATACT TGAATCTGGC TTTCAATATG TTTGGTTGTC	1500
AAACCACAAC GGGCAAGGGC TGCACGGACT TCTGCTGAT TAAGGGCAGG AAAGGCATTC	1560
CAGACAGCTT CAAGAGGAGT TTGGCGATTA CCGCCTCTA CTTCTGCTC AAAATAACCA	1620
AGTTCTAAAT AATCTCCACG CTCCACTTCC CCAGCGATTG GCGAGATAAT GCCCAAGAGA	1680
CTCTTCAAGA GAGTTGTTTT TCCAATACCA TTAGCACCAA TAATCGCAAC CTTTGTGATTG	1740
CGTTCGAAGG TAAGATTTAA AGGCTTAGTA AGAGGACGGT CGTAACCAAT TTGCAAGTTC	1800
TTGGCTTGGA AGATAAAGCG CCCTGGTGTA CGAGCTGGT TGAAATCAAA GGATGGTTTT	1860
GGTTTCTCAC TTTGGAGTTC GATAATATCC ATCTTATCCA ATTTCTTTTG ACGAGACATA	1920
GCCATATTAC GAGTTGCAAC ACGGGCTTTA TTACGAGCCA CAAAGTCCTT GAGGTCTGCA	1980
ATCTCTTTCT GCTGGCGTTC GTAGGCTGCC TCTAGCTGAG ATTTCTTCAT AGCATAAACT	2040
TCTTGGAAC TTAGTAGTC ACCAGAGTAA CGCGTCAGCT GTTGATTTTC CACATGATAG	2100
ACAATATTAA TAACGTCATT GAGGAATGGA ATATCGTGCG AAATGAGAAC AAAGGCATTC	2160
TCATAGTTTT GGAGATAGCG CTTGAGCCAA TCAATATGCT CAGCATCCAA GTAGTTGGTC	2220
GGCTCGTCCA ACAGCAAGAT ATCAGGCTTT TCAAGGAGAA GTTTTGCCAA AAGCACCTTG	2280
GTTCTTTGCC CACCTGACAA AGAAGTTACA TCCGTATCCA TGCCAAAGTC CATAACACCA	2340
AGAGCAGCG CTACTTCGTC AATCTTAGCA TCCAAGGTAT AGAAATCACG ACTCTCCAGA	2400
CGGTCTTGAA GTTCTCCTAC TTCTTCCATG AGAGCATCAA CATCCGCGCC GTCTTCAGCC	2460
ATTTTCATAT AGAGGTCATT GATACGAGCT TCAGCTTTGA AAAGCTCATC AAAAGCCGTA	2520
CGGAGAACAT CACGCACCGA CTGTCTTTCA GCAAGGACAG AGTGCTGATC CAAGTAACCA	2580

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GCCGTACAT	ATTTGGACCA	CTCAACCTTT	CCTTCATCTG	GCAGCATTTT	ACCAGTCACG	2640
ATACTCATAA	AGGTTGATTT	TCCTTCACCA	TTGGCACCGA	CCAGGCCGAT	ATGTTCTCCC	2700
TTGAGGAGAC	GGAAGGACAC	ATCTTCAAAA	ATTGCACGGT	CACCAAAACC	GTGACTCAGA	2760
TTTTTAACTT	CTAAAATACT	CATTTTAATT	CCTTACCTTG	TTTTTATGTA	ATCGTTTATA	2820
AAGGAGCCAA	GCCAGATAGC	CACCCAAAGT	GTTGGTCCAC	AAATCATCAA	TCTCAAAGAC	2880
GCGATTGAAA	TCAAAGAAAA	AGTCCAAGAT	TAATTGCGTA	CACTCGATTC	CAAGACTCAC	2940
AAGAAAACTA	AAAAGAAGGA	CCTTTTGTGT	TTTCCGCAAA	TTTGGAATA	GATAAAGGAG	3000
TTGGAATATC	AGAGGAAAAA	ACAAGAAGAC	ATTGAGGATA	TTTTGTAAAA	AAATCCAACA	3060
TAATTGTCCA	ATGTCACTCA	CTTCGCCCAG	TTTCCAGAGA	GAATTGAAAG	GAGTCAAAAG	3120
AAAAACCAGG	CGTCCAAGAT	GCTGAATACC	TGGAGTTCCC	ACTCCCACGG	TAGATTGTTC	3180
TTGAGGAGTA	AAGCAAAAAC	AGACAATGCA	AATGCTATAG	AAAATGACTC	CCCAGACCAA	3240
AATATGATTA	TAAGTCTTCT	TCATCATTA	GGATTTACCG	CTGCGACTGC	CTTCTGGCGG	3300
TCACGTTTCA	TTGTGTAGA	GCGCAATTGT	CCACAAGCTG	CGTCAATATC	TGTACCATGC	3360
TCTTGACGAA	CCACACAGTT	GACCCCTTTT	TTCTTAAGCG	TATCATAGAA	AGCCAACACG	3420
CACTCTTTGG	GACTACGGCT	ATATTGGTCA	TGCTCACTAA	CTGGGTATA	AGGAATCAAG	3480
TTTACATAAG	ACAATTCTTT	GATGTTCTTG	AGCAATTCAG	TCAATTCCAA	GGCTTGTTCT	3540
ACACCGTCGT	TGACTTCATT	AAGCATGATA	TATTCAAAGG	TTACACGACG	GTTTGTGTTC	3600
TCAATGTAGT	ATTCAATAGC	AGCAAAGAGT	TTTTCAATCG	GAAAGGCACG	GTTAATCTTC	3660
ATGATACTTG	AACGAAGTTC	ATTGTTAGGT	GCGTGAAGAG	ACACGGCAAG	ATTGACCTGA	3720
ACCCCTTCAT	CAGCAAAGTC	ACGAATTTTA	TGAGCCAAAC	CTGAGGTGA	AACCGTGATG	3780
TGACGAGCAC	CGATAGCCAT	TCCTTTATCA	TCATTGATAG	TACGAAAGAA	ATTCAAGACA	3840
TTGTTGTAAT	TATCAAAGGG	CTCACCGATT	CCCATGACAA	CGATATGGCT	GATGCGTTCA	3900
TCCTGACCAC	GCTCATCAAA	GTATTCTCTGA	ACCAGCATGA	TTTGCGCTAC	GATTTACCGG	3960
TTATTGAGGT	CACGTTGCTT	CTTAATCAAA	CCAGAGGCAC	AGAAGGTACA	ACCGATATTA	4020
CAGCCGACCT	GAGTGGTCAC	ACAGACAGAT	AAACCATAGT	GTTGACGCAT	GAGTACAGTC	4080
TCAATTAACA	TACCGTCGGG	CAATTCAAAG	AGATATTTGA	CTGTACCATC	AGCAGACTCT	4140
TGCACAATAC	GTTGTTTCAA	GGGATTGACC	ACAACTGGT	CATTGAGCTT	AGCAATCAAA	4200
TCCTTGAAAA	GGTTGGTCAT	TTCTTCAAA	GACTGCACAC	GTTTACGGTA	GAGCCATTCC	4260
CAGATTTGAT	CTGCACGGAA	TTTCTTTTCT	CCCTGCTCCA	ATACCCATTC	CTGCATGGTT	4320
TGATGTACCA	AACTATGAAT	TGAGGGTTTC	ATTTCTTCTC	CTTATTCTCT	ACTCACTTCT	4380

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GACGAATGAC AAAATGACGT TGTCCCTTGT CGTCTTCTG ACGACGTCTA TTTTCTTAT 4440  
 CTGCATTCGA CTTTCGTTTA GTTTGAGTCG GTTCTTTCC TTTCTAGAA GGTGTTTCTT 4500  
 CTTCCGTCTT ACGCATTTTC TTGTCAAATG ATGCTCGCTT AGGGGCTTCA TTTTCTAAGA 4560  
 CAAAATAGGC ACAACCATAA CTACAATACT CTAAAAGGTA GTCTTGTAAG CGACTGATTT 4620  
 TTTCAGTTT TTCTTCTGTT CGGTCATCCT TGTAAAAACC TCGTAGGCGA AGCTGTTCTG 4680  
 TGCTCCAGTC CCCCACGATA TAATCAAAC TGGTTAATAC TTCTGAAAA CGCTGATTAA 4740  
 AAGTCGTAC ATCAAAGGCA TCCTTGATAT TTTCAACCA GAAAAAGCT ATCCCTTCCG 4800  
 TTTCGACCTT GTCCCGTGT AAATGGAAC CCGGACCAG AACTTGTTA TAGTTGTATA 4860  
 ATTCAGGTGC AATTCTTTT CGCATAGATA TCCTTTTTT ACGATTACTT AATACTTTAT 4920  
 TCTACCATAA TTTCTAGCAG TTAGCACGTT TCTCATAAAA ATGAAAAAG TCTGACGATT 4980  
 TTGTCAGACC AGAATCTTAT AACCTAAAA GAGAAGAACA ATTCTTCCCT CCAACTATCA 5040  
 TTATTTAGCA GCTGCGTACA ATTCATCTAC TTTATTCCAG TTGATTACTG AAAAGAAAGC 5100  
 TTTGATGTAG TCAGGACGCA CGTTGCGGTA TTTACGTAAG TAAGCATGTT CCCAAACGTC 5160  
 CAAGCCCAAG ATTGGTTTTT TACCTTCTGA GATTGGTGTG TCTTGGTTTG CTGTTGAAGT 5220  
 CACTTCAAGT TTCCCTTCTT TGTGACAAC CAACCATGCC CAACCTGAAC CAAAACGAGT 5280  
 TGTGCTGCT GCAGTGAAG CTGCTTGAA TTCTTCAAAT GAACCAAATG TTGCATCGAT 5340  
 TGCTGCTGCC AGTTCTGCTG AAGGAGCTGT TTTCTCGGGA GTCATCAATT CCCAGAAAAG 5400  
 AGCGTGGTTC AAGTGTCGC CACCATTGTT GATAAGTGCT TGACGGATAT CAGCTGGGAT 5460  
 AGATTCTACA TCAGCAAGCA AGGCTTCAAG GTCTTCACCG ATTTCAGGGT GTTTTCTAA 5520  
 AGCTGCATTG GCATTGTTGA CATAAGTTG ATGGTGTT 5558

(2) INFORMATION FOR SEQ ID NO: 104:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6735 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 104:

GGAATTGTAA ATATCATATT GTTTTGCAC CCAAATATCG TCGTCAAATC ATTTATGGCA 60  
 GATACAAAGC TAGTATCGGA AGAATCATAC GTGACTTATG TGAGCGTAAG GGTGTAATAA 120  
 TCCATGAAGC GAATGCTTGT TCAGACCATA TTCACATGCT TATCAGTATT CCTCCGAAAC 180

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TTAGTGTTTC	GTCCTTTATG	GGCTATTTAA	AGGGCAAGAG	CAGTTTGATG	ATTTTGTGATA	240
AGCATGCGAA	TTTAAATAC	AAATATGGCA	ATCGCAAGTT	TTGGTGTAGA	GGCTATTATG	300
TAGATACGGT	AGGCCGTAAT	CAGAAAGTGA	TAGCTGAATA	TATTCAGAAT	CAATTACAAG	360
AAGACAGAGT	AGCAGACCAG	CTCACGTTAT	TCGAGTCAGT	AGATCCGTTT	ACTGGCGAAA	420
TAAATAAGAG	GAAGTAACTA	AGGTGCTTTA	GCACCTGCTC	GGGAAAGTGG	TGCGCGAGGA	480
AGCTATTTTCG	GTGGGCCTTT	GGCCCTGGCC	GGTAGAAGCG	GCTTATAGCC	GCAGAACAAA	540
CCACCAGTTC	ACACTGGTGG	TTTTGATTTA	AAAACTTGA	TACATAAAAA	TAAAAGTCTA	600
TATAAAGGAT	GGTAAATTC	CTGTTGTCCG	ATTTGGACAA	TATCCTAAAT	AGTTACAATA	660
TATGGTCTAT	ACTTTTCTT	AGGAGAAAGC	TAGATGTACA	GACGTTTGAG	AGATTTGAGG	720
GAGGATCATG	ATCTGCCCCA	AAAGCAAATA	GCTACAATAC	TTTCGTTTAC	AAATTCAGCT	780
TATGCCAAAA	TTGAACGGGG	TGAGCATGCG	TTGACGGCTG	ATGTATTGGT	TAAACTCTCA	840
GATTTCTATG	ACGTCAGTAC	AGACTATTTA	TTGGGATTAA	CTGATTTTCC	TGATAAAATT	900
CGCTTTAGAA	AATAATCTCC	TCAATTTTCAT	AGAGTTTGAA	AATGAGTGAG	ATTTTTTATT	960
TGCCCTTTGA	CAACTGAATA	GCCTAAAATG	GTACTTTCCT	CATTTGTGGA	GCAAATTTGA	1020
ATGGCTCGCC	ATGATAAGAG	CGATTTTAAA	ATCATCAATA	AAATAGAGCG	ATACTTTATA	1080
TGCCATGATA	CAAATGATAT	ACAATGATAC	TTCTGACCGT	TCAGCCTGCC	AACGTAAAAG	1140
AGCAGCAAGT	GAAATCTTGA	TGATGACTTC	ATCAGTCATG	CCACGTTGAA	TGTGTGAGTT	1200
TGTTAGATAA	ACGCAATTAA	TCCTCAAAAG	GTTCCCGGAA	CCTTTTGAGT	TCTACAGACG	1260
CATCAGTGG	AGTGTGTAAG	CTTGTTGCTA	AAAGCGTAAA	AACCTTGGAA	CGAAAGGAAT	1320
AATAGACTTT	CTGCGAAACA	AAAATATAAT	ACAATAAAAC	TATGAATGAT	GAAGCAAGTA	1380
AACAATTGAG	CGATAGCCGT	TTCAAGATCC	TTGTAGGTGT	TCAGCGCACG	ACTTTTGAAG	1440
AGATGTTAGC	TGTGTTAAAA	ACAGCTTATC	AACGTAACG	CGCAAAGGT	GGACGAAAAA	1500
GCAAATTAAG	CCTAGACGAT	CTCCTTATGG	TAACATTCA	ATACATGCGA	GAATAGAGCA	1560
CTTATGAACA	AATTGCGGCT	GATTTTGGCA	TTCACGAAAG	CAACTTAATC	CGTCGGAGTC	1620
AATGGGTGTA	AGCAACTCTT	ATTCAAAATG	GTTTTACGAT	TTCAAATTCT	GCCTTAATTC	1680
TGTAAAAACA	GTAAATTCG	AAGGATTGTA	AGGTAAGAGT	TTTTTTCTTT	CTGAAAAAAT	1740
GGTATAATAG	CAATCAAAAC	TAGAAAATAA	AACGGAATTT	GGAACAGATT	TGTCTGTATC	1800
CTAGTAGAGT	GGTGATACTA	TGAAGATTAG	TAAGAGGCAC	TTATTAAATT	ATTCCATCTT	1860
GATTCCTAC	TTGCTTTTAT	CTATTTTGGG	CTTGATTGTG	GTCTATTCGA	CCACCAGTGC	1920
TATTTTAATT	GAAGAAGGCA	AGAGCGCCTT	GCAGTTGGTT	CGAAACCAAG	GAATCTTTTG	1980

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GATTGTTAGT TTGATACTGA TTGCCTTAAT TTATAAATTG AGACTAGATT TTTTGAGAAA	2040
TGAGCGACTA ATCATTTTAG TTATATTAAT AGAAATGCCTT TTATTGTTCT TGGCTCGTTT	2100
TATTGGTATT TCCGTAAACG GGGCATAACG TTGGATTTCG GTTGCAGGAA TAACTATTCA	2160
GCCAGCTGAG TACTTAAAA TCATTATTAT TTGGTATTTA GCTCACCGAT TCTCCAAACA	2220
GCAAGAAGAA ATAGCTACTT ATGATTTTCA AGTTTGTACT CAAAATCAAT GGCTTCCCCG	2280
TGCTTTTAAT GATTGGCGAT TCGTTCTCCT AGTTCGTATT GGAAGTTTGG GAATTTTCCC	2340
TGATTTAGGA AATGCGACTA TTTTAGTCTT GGTTCCTTG ATTATGTATA CAGTTAGTGG	2400
AATCGCTTAT CGCTGGTTTT CAACCATCTT GGCCTCGTA TCTGCCGCTT CTGTCTTTGT	2460
CTTGACCACT ATCAGCCTAA TCGGTGTTGA GACCTTTTCA AAAATTCCAG TATTCGGCTA	2520
TGTAGCCAAG CGCTTTAGTG CCTTTTTTAA TCCTTTTGCC GATCGTGCTG ATGCAGGTCA	2580
CCAGTTAGCT AATTCTTATT TTGCCATGGT CAATGGCGGT TGGTTTGGTC TAGGTCTTGG	2640
AAACTCGATT GAAAAACGAG GTTATTTGCC AGAAGCTCAT ACAGACTTTG TCTTTTCTAT	2700
CGTGATTGAA GAATTTGGCT TTGTGGTGC CAGTCTTATT TTAGCTCTCT TGTTTTTCAT	2760
GATTTTGCGG ATTATCTTGG TCGGTATCCG AGCGGAGAAT CCTTTCAATG CCATGGTTGC	2820
ACTCGGTGTC GGAGGGATGA TGTTGGTTCA GGTATTTGTC AATATCGGAG GGATTTCGGG	2880
CTTGATTCCA TCTACAGGAG TGACTTTCCC CTCTTTATCC CAGGGTGGAA ATAGTCTTCT	2940
AGTCTTATCA GTGGCAGTAG CCTTTGTCTT AAATATTGAT GCCAGTGAAA AACGCGCTAA	3000
ATTGTACCGA GAATTGGAAT ATCAACCAAT GAACCTTCTG TTGAAGTAGG ATAAAGAAAG	3060
GATAGTTTAT GTCTCTTCAA AAATTAGAAA ATTATAGTAA TAAAAGTGTT GTGCAAGAAG	3120
AAGTCTTGAT TCTAACAGAA TTAGTGGAAG ATATTACTAA AAATATGCTT GCCCCAGAGA	3180
CCTTTGAAAA AATAATACAG TTGAAAGAAT TATCAACGCA GGAAGATTAT CAAGGTCTAA	3240
ACCGTCTAGT GACTAGCTTA TCAAATGATG AAATGGTCTA TATTTACGCG TATTTCTCTA	3300
TCTTGCCTCT TTTGATTAAT ATTTAGAGG ATGTGGATTT AGCTTATGAA ATCAATCATC	3360
AAAATAATAT TGATCAGGAC TATTTAGGTA AATTATCTAC AACGATTAAA TTGGTAGCAG	3420
AAAAGGAAAA TGCCGTTGAG ATCCTAGAAC ACTTGAATGT TGTCCCTGTT TTGACAGCCC	3480
ATCCAACACA AGTGCAACGC AAAAGTATGT TGGATTTAAC AAATCATATT CATAGTCTTT	3540
TGCGTAAATA CCGTGATGTT AAGTTGGGGT TGATCAATAA AGATAAATGG TACAATGATT	3600
TGCGTCGTTA CATCGAAATT ATCATGCAGA CAGACATGAT TCGTGAGAAA AAATTAAG	3660
TGACTAACGA AATCACGAAT GCTATGGAAT ATTATAACAG CTCCTTTTGT AAAGCTGTAC	3720

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CTCATTTGAC GACGGAGTAT AAGCGCTTAG CGCAAGCGCA TGGTCTGAAT TTAAACAGG	3780
CTAAACCAAT CACCATGGGT ATGTGGATAG GTGGTGACCG TGATGGAAAT CCATTTGTTA	3840
CAGCAAAGAC CTTGAAGCAG TCTGCACTCA CTCAGTGTGA AGTCATCATG AACTACTATG	3900
ATAAAAAGAT TTACCAACTT TATCGTGAAT TTTCTCTTTC AACTAGCATT GTCAACGTCA	3960
GCAAGCAAGT CAGAGAAATG GCTCGTCAAT CCAAGGATAA CTCGATTAC CGCGAAAAAG	4020
AGCTTTACCG TCGTGCCTTG TTTGATATTC AATCAAAAAT TCAGGCAACT AAAACCTATC	4080
TGATTGAGGA TGAAGAAGTT GGGACTCGTT ATGAAACCGC CAATGATTTT TACAAGGATT	4140
TGATTGCCAT TCGAGATTCT CTA TAGAGAAA ATAAGGGCGA GTCCTTGATT TCAGGTGATT	4200
TTGTGGAATT ATTGCAAGCA GTAGAGATAT TTGGTTTTTA CTTAGCATCA ATTGATATGC	4260
GACAAGACTC TAGCGTCTAT GAAGCCTGTG TGGCAGAACT CTTGAAATCA GCAGGAATTC	4320
ATTCTCGTTA TAGCGAGTTG AGCGAAGAAG AAAAGTGTGA CCTTCTCTTG AAAGAATTAG	4380
AAGAAGATCC CCGAATCTT TCTGCGACTC ACGCAGAAAA ATCAGAATTA TTAGCAAAAG	4440
AATTAGCTAT TTTTAAGACG GCTCGTGTTC TGAAAGATAA GTTGGGAGAT GATGTCATCC	4500
GTCAGACCAT CATTTACAT GCAACCAGCC TTTCTGATAT GCTAGAATTA GCTATCTGT	4560
TAAAAGAAGT AGGACTGGTG GATACGAAA GGGCGCGTGT TCAGATTGTT CCCCTTTTTG	4620
AAACAATTGA AGACTTGGAT CATTCAGAGG AAACAATGAG AAAATATCTT TCTCTTAGCC	4680
TTGCCAAAA ATGGATTGAC TCACGAAATA ACTACCAAGA AATCATGCTT GGCTACTCTG	4740
ACAGTAATAA AGATGGCGGT TACTTGTCAT CATGTTGGAC CCTCTACAAG GCTCAACAAC	4800
AATTGACTGC TATTGGAGAT GAATTTGGCG TTAAGGTTAC CTTCTTCCAT GGTCGTGGTG	4860
GTACTGTCCG TCGTGGTGGT GGGCCAACCT ATGAAGCCAT TACATCTCAA CCGCTCAAGT	4920
CTATCAAGGA TCGTATCCGC TTGACGGAGC AGGGTGAAGT AATTGGGAAT AAATACGGTA	4980
ACAAAGACGC CGCTTACTAT AACCTTGAAA TGCTAGTATC GGCAGCTATT AACCGTATGA	5040
TTACTCAGAA GAAGAGCGAT ACCAATACCC CAAATCGTTA TGAAACCAT ATGGATCAAG	5100
TAGTGGACCG TAGTTACGAT ATCTACCGTG ATTTGGTCTT TGGTAATGAG CATTTCTATG	5160
ATTATTTCTT CGAGTCAAGT CCAATCAAG CTATTTCAAG TTTTAATATT GGTCTCTGTC	5220
CAGCCGCTCG TAAGACTATT ACTGAAATCG GTGGTTTGCG TGCCATCCCT TGGGTATTCT	5280
CATGGTCACA GAGTCGTGTT ATGTTCCCTG GATGGTACGG GGTGGTTCA AGCTTCAAGG	5340
AATTTATCAA TAAAAATCCA GAGAATATTG CTATCTTACG AGATATGTAC CAAAATTGGC	5400
CTTCTTCCA ATCGCTTCTT TCAAATGTTG ATATGGTTTT GTCAAAATCA AATATGAATA	5460
TTGCTTTTGA ATATGCTAAA CTTTGTGAAG ACGAGCAAGT TAAGGCCATC TATGAGACTA	5520



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TTTTAAATGA ATGGCAAGTT ACTAAGAACG TTATCTTGGC TATTGAAGGA CATGACGAAC      5580
TCTTAGCTGA CAATCCATAT CTAAAAGCTA GTCTGGATTA CCGTATGCCT TACTTTAATA      5640
TTCTCAACTA TATTCAGTTG GAGTTGATTA AACGCCAACG TCGTGGAGAA TTGTCCAGTG      5700
ATCAAGAACG ATTGATTCAT ATCACCATCA ACGGAATTGC GACAGGATTG CGTAATTCAG      5760
GTTGATAATT TTCAAGAGTG AATGCTAAAA GTGAATATCA AAAAAATTCT AATAGACTAT      5820
TGACAAGTAG TTTAAAAATG ATATAATTTA ACCATTCAGA AAAGTAATCA TACAAACTTT      5880
TTAGAGAGTC TGTGGTAGCT GAAAACAGAT AAGTGGCAAT GATGAAAATT GGGCTGAATG      5940
CTATTTAGAA TTTGAAATTA TAAAAATTCG GTAAGCACAC CTACAGTGC ATCTCGTTAT      6000
TGCGAGACTG AGCGATAGGG AAATTCCTTA TAATTGAGGT GGTACCGCGC ATCGACGTCC      6060
TCACACAAGT TTTTGTGTG AGGATTTTTT TGATGGAGGT TAGTATGGAA AGAAAACGAT      6120
GGCGTCGCTT GTTTAGATAA GTGAAATATG TTAAAGGAAA TAAAAAGGAG AAACAGAATG      6180
AAAAATAAAC GTTTAATTGG AATTATTGCT GCATTAGCAG TCTTAGTAGC AGGAAGCTTG      6240
ATTTATCTT CAATGAATAA ATCAGAAGCT CAGAATAATA AGGATGAGAA GAAAATAACC      6300
AAGATTGGTG TGCTTCAATT TGTGAGCCAT CCATCCCTTG ATTTGATTTA TAAAGGGATC      6360
CAAGATGGAC TTGCAGAAGA AGGATATAAA GATGATCAAG TTAAATTTGA TTTTATGAAC      6420
TCAGAAGGTG ACCAAAGTAA GGTGCGACA ATGAGTAAAC AATTGGTTGC AAATGGGAAT      6480
GACCTTGTGG TTGGTATCGC AACACCAGCA GCCCAAGGGT TGGCTAGTGC AACAAAAGAC      6540
CTACCGGTTA TCATGGCCGC TATTACAGAC CCAATTGGTG CTAAGTTGGT TAAAGATTG      6600
AAAAAACGAG GTGGCAACGT TACAGGGGTA TCTGACCACA ATCCAGCTCA ACAACAAGTT      6660
GAACTCATCA AGGCTCTGAC ACCGAATGTG AAAACAATCG GAGCTCTTTA CTCAAGTAGC      6720
GAAGACAATT CAAAAA                                     6735

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(2) INFORMATION FOR SEQ ID NO: 105:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6516 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 105:

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CTAGAGGATC CCAGCAGGTA AATTGGCTTC AGCTGGCAAA AAAGTTGCCC TCGTTGAACG      60
CAGCAAGGCT ATGTACGGTG GAACTTGTAT CAACATTGGT TGTATCCCAA CTAAAACCTT      120

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GCTAGTTGCT	GCTGAAAAGG	ACTTGTCTTT	TGAAGAAGTC	ATTGCTACTA	AAAACACGAT	180
CACTGGTCGC	CTCAACGGTA	AAAACATATGC	GACTGTTGCT	GGTACAGGCG	TAGATATCTT	240
TGATGCGGAA	GCTCACTTCC	TTTCAAATAA	AGTCATCGAA	ATCCAAGCTG	GTGATGAAAA	300
GAAAGAAGCTG	ACTGCTGAAA	CAATCGTCAT	CAACACTGGT	GCTGTTTCAA	ACGTCTTGCC	360
AATCCCTGGA	CTTGCTACAA	GCAAAAACAT	CTTTGACTCA	ACAGGTATCC	AAAGCTTGGA	420
CAAATTACCT	GAAAAACTTG	GAATCCTTGG	TGGCGGAAAT	ATCGGTCTTG	AATTTGCCGG	480
CCTTTACAAC	AAACTTGGA	GCAAGGTCAC	AGTCCTAGAT	GCCTTGGATA	CATTCTTACC	540
TCGTGCAGAA	CCTTCCATCG	CAGCTCTTGC	TAAACAATAC	ATGGAAGAAG	ATGGCATTGA	600
ATTGCTTCAA	AATATCCATA	CTACTGAAAT	CAAAAACGAT	GGTGACCAAG	TGCTTGTCGT	660
AACTGAAGAC	GAAACTTACC	GTTTCGACGC	CCTTCTCTAC	GCAACTGGAC	GCAAACCAAA	720
TGTAGAACCA	CTTCAACTTG	AAAATACAGA	TATTGAACTA	ACTGAACGTG	GTGCTATTAA	780
AGTAGACAAA	CACTGTCAAA	CAAACGTTCC	TGGTGTCTTT	GCAGTTGGAG	ATGTCAACGG	840
TGGCCTTCAA	TTTACTTACA	TTTCACTTGA	TGACTTCCGT	GTGTTTACA	GCTACCTTGC	900
TGGAGATGGC	AGCTATACAC	TTGAAGACCG	TCTCAATGTG	CCAAATACTA	TGTTTCATCAC	960
ACCTGCACTT	TCACAAGTTG	GTTTGACTGA	AAGCCAAGCA	GCTGATTTGA	AACTTCCATA	1020
CGCTGTTAAG	GAAATCCCCG	TTGCAGCAAT	GCCTCGTGGT	CACGTAAATG	GAGACCTTCG	1080
CGGTGCCTTC	AAAGCTGTTG	TCAATACTGA	AACAAAAGAA	ATTCTTGGAG	CAAGCATCTT	1140
CTCAGAAGGT	TCTCAAGAAA	TCATCAACAT	CATCACTGTT	GCTATGGACA	ACAAGATTCC	1200
TTACACTTAC	TTACAAAAAC	AAATCTTCAC	TCACCCAACC	TTGGCTGAGA	ACTTGAATGA	1260
CTTGTTTGCG	ATTTAAGTTG	AGATTTAATC	GTATCGAACA	GCCCTCTTTG	GGCTGTTTTT	1320
ACTTCTGCGG	AATCTCAAAT	CTGTCTTTCT	CCTCTTTTAT	GATATAATAG	AAACATGAAC	1380
TTAAAAACTA	CTTTGGGCCT	TCTTGCTGGG	CGTTCTTCCC	ACTTCGTTTT	AAGCCGTCTT	1440
GGACGTGGAA	GTACGCTCCC	AGGGAAAGTC	GCCCTTCAAT	TTGATAAAGA	TATTTTACAA	1500
AACCTAGCTA	AGAACTACGA	GATTGTCGTT	GTCACTGGAA	CAAATGGAAA	AACCCTGACA	1560
ACTGCCCTCA	CTGTCGGCAT	TTTAAAAGAG	GTTTATGGTC	AAGTTCTAAC	CAACCCAAGC	1620
GGTGCCAACA	TGATTACAGG	GATTGCAACA	ACCTTCCTAA	CAGCCAAATC	TTCTAAAAC	1680
GGGAAAAATA	TTGCCGTCCT	CGAAATTGAC	GAAGCCAGTC	TATCTCGTAT	CTGTGACTAT	1740
ATCCAGCCTA	GTCTTTTTGT	CATTACTAAT	ATCTTCCGTG	ACCAGATGGA	CCGTTTCGGT	1800
GAAATCTATA	CTACCTATAA	CATGATATTG	GATGCCATTC	GGAAAGTTCC	AACTGCTACT	1860
GTTCTCCTTA	ACGGAGACAG	TCCACTTTTC	TACAAGCCAA	CTATTCCAAA	CCCTATAGAG	1920

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TATTTTGGTT	TTGACTTGGA	AAAGGGACCA	GCCCAACTGG	CTCACTACAA	TACCGAAGGG	1980
ATTCTCTGTC	CTGACTGCCA	AGGCATCCTC	AAATATGAGC	ATAATACCTA	TGCAAACTTG	2040
GGTGCCTATA	TCTGTGAAGG	TTGTGGATGT	AAACGTCCTG	ATCTCGACTA	TCGTTTGACA	2100
AAACTGGTTG	AGTTGACCAA	CAATCGCTCT	CGCTTTGTCA	TAGACGGCCA	AGAATACGGT	2160
ATCCAAATCG	GCGGGCTCTA	TAATATCTAT	AACGCCCTAG	CTGCTGTGGC	CATCGCCCGT	2220
TTCCTAGGTG	CCGATTTCGA	ACTCATCAA	CAGGGATTTG	ACAAGAGCCG	TGCTGTCTTT	2280
GGACGCCAAG	AAACCTTTCA	TATCGGTGAC	AAGGAATGTA	CCCTTGCTCT	GATTAAAAAT	2340
CCAGTCGGTG	CAACCCAAGC	TATCGAAATG	ATCAAACCTAG	CACCTTATCC	ATTTAGCCTA	2400
TCTGTCCTCC	TTAATGCCAA	CTATGCAGAT	GGAATTGACA	CTAGCTGGAT	CTGGGATGCA	2460
GACTTTGAAC	AAATCACTGA	CATGGACATT	CCTGAAATCA	ACGCTGGCGG	TGTTCTGCAT	2520
TCTGAAATCG	CTCGTCGCCT	CCGAGTGACT	GGCTATCCAG	CTGAGAAAAT	CACTGAAACG	2580
AGTAATCTGG	AGCAAGTTCT	CAAGACCATT	GAGAATCAAG	ACTGCAAGCA	TGCCTATATT	2640
CTGGCAACTT	ATACTGCCAT	GCTGGAATTT	CGTGAACCTG	TGGCTAGTCG	TCAGATTGTT	2700
AGAAAGGAGA	TGAACTAATG	GTTTATACTT	CACTTTCCTC	AAAAGATGGC	AATTACCCCT	2760
ATCAGCTCAA	CATTGCCCAC	CTCTACGGAA	ATCTCATGAA	TACTACGGGG	ACAATGGAAA	2820
CATCCTCATG	CTCAAGTATG	TGGCTGAAAA	ACTGGGAGCC	CATGTGACCG	TTGACATCGT	2880
TTCTCTCCAT	GATGACTTTG	ATGAAAATCA	CTACGACATC	GCCTTTTTCG	GTGGTGGTCA	2940
AGACTTTGAA	CAAAGTATCA	TTGCAGACGA	CCTACCTGCT	AAAAAAGAGA	GCATTGACAA	3000
CTACATCCAA	AACGACGGTG	TAGTTCTGGC	TATCTGCGGT	GGTTTCCAAC	TATTGGGTCA	3060
ATATTATGTT	GAAGCTTCAG	GAAAACGTAT	CGAAGGGCTA	GGGGTCATGG	GACACTACAC	3120
GCTCAACCAG	ACCAATAAACC	GTTTTATCGG	TGACATCAAG	ATTACAAATG	AAGATTTCGA	3180
TGAAACCTAC	TATGGATTTG	AAAATCACCA	AGGTCGTACC	TTCTCTCTCTG	ATGACCAAAA	3240
ACCGCTGGGA	CAGGTTGTCT	ATGGAAATGG	AAACAACGAA	GAAAAGGTCG	GTGAAGGGGT	3300
TCATTATAAG	AATGTCTTTG	GTTCTACTT	CCACGGGCCT	ATCCTCTCTC	GTAATGCCAA	3360
TCTGGCTTAT	CGCCTAGTTA	CTACTGCCCT	CAAGAAGAAA	TATGGTCAGG	ACATCCAACT	3420
CCCTGCCTAT	GAGGACATTC	TCAGCCAAGA	AATCGCTGAA	GAGTACAGTG	ACGTCAAAAAG	3480
CAAGGCTGAC	TTTTCTTAAA	CAAAGGAAAA	TGATATCAAA	GAATCCGTT	ATCTTGTCGG	3540
AGTTTTTTGT	CTTTTCTTTT	ACCCTTCTCC	CTTGCAATTTT	CTCTCATTTT	TTGCCAAAAT	3600
AGAGGGGTAG	AAAGAAGGTA	GCATATGTCT	AAATTACAAC	AAATCCTAAC	ATATCTTGAA	3660

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TCAGAAAAAC	TAGACGTCGC	TGTCGTATCT	GACCCCGTCA	CAATCAATTA	CCTCACTGGT	3720
TTTTACAGTG	ATCCCCATGA	ACGCCAAATG	TTCCTCTTTG	TCCTAGCAGA	TCAGGAACCT	3780
CTCCTCTTTG	TCCCAGCTCT	TGAAGTAGAA	CGTGCAAGTA	GCACCGTTTC	CTTCCCAGTA	3840
GTGGGCTATG	TCGATTCTGA	AAATCCATGG	CAAAAAATCA	AACATGCTCT	TCCACAACCT	3900
GACTTCAAAC	GTGTCGCTGT	TGAGTTTGAC	AATCTCATCT	TGACCAAATA	CCATGGTTTG	3960
AAAACAGTTT	TTGAGACTGC	TGAGTTTGAC	AACCTCACTC	CTCGTATCCA	ACGCATGCGC	4020
CTCATCAAAT	CAGCTGATGA	AGTGCAAAAA	ATGATGGTTG	CAGGTCTTTA	TGCTGACAAG	4080
GCTGTTCATG	TTGGTTTTGA	CAATATTTCT	CTTGATAAGA	CTGAGACAGA	TATCATCGCA	4140
CAAATCGACT	TTGCCATGAA	ACGTGAAGGT	TATGAAATGA	GCTTTGATAC	CATGGTCTTG	4200
ACTGGTGATA	ATGCTGCGAA	TCCACACGGC	ATTCCAGCAG	CTAATAAGGT	TGAAAATGAT	4260
GCTCTTCTCC	TCTTTGACCT	GGGTGTTCTG	GTCAATGGCT	ATGCGTCAGA	TATGACTCGT	4320
ACAGTCGCTG	TCGGCAAACC	AGACCAATTC	AAGAAAGATA	TTTACAACCT	GACTCTTGAA	4380
GCCCAACAAG	CTGCTCTTGA	CTTTATCAAG	CCAGGTGTGA	CTGCTCATGA	AGTGGACCGC	4440
GCTGCCCGTG	AGGTCAATCGA	AAAAGCTGGT	TATGGTGAGT	ACTTCAACCA	CCGTCTCGGG	4500
CATGGTATCG	GTATGGATGT	CCATGAATTC	CCATCTATCA	TGGAAGGAAA	CGACATGGTC	4560
ATCGAAGAAG	GCATGTGCTT	CTCTGTTGAA	CCAGGTATCT	ATATCCCTGG	TAAAGTCGGT	4620
GTTCGTATTG	AAGACTGCGG	TGTTGTTACC	AAGGATGGCT	TCAACCTCTT	TACAAGCACC	4680
AGCAAAGATT	TGCTTTATTT	TGATTAAACT	ATATAGCCCC	TATGCTTTCC	TTTCAAAATA	4740
TCTAGGGGCT	ATTTTATTGT	CATTTTCTG	CTATTATGCT	AAAGAAATTG	GCTGCAATAA	4800
TCTAACCCCTA	AGTGTCTGGA	ATGATAACGA	GGGTGCTCTC	CGCTTTTATC	AAAGACAAGG	4860
GATGAAACCC	CAAGAAACAA	CAATGGAAAT	GATAATTGAT	TAAGAAGTCA	TCTATCAAAA	4920
GATGTTAGAA	AAAGTTCAAT	TTCACTAGAA	AATGAGGAAA	ATCTCCCCAC	AATAAAACGC	4980
ATAGTATCAG	GTATTGTGTA	CTGACCCCAA	ACAGTTAGAC	AATTAATTTA	TCCGAAGGAT	5040
TTAGTTCTGT	ACTGCACAGG	ACTAAGTCCT	TTTAGTTTTA	CCTTAATTCG	TTTGTTGTTG	5100
TAGTAATCAA	TATAGTCTAT	AATGACTTGT	TCCAATTGGT	TAAGTGATTT	AAATGTTTTTC	5160
TCATAGCCAT	AAAACATTTT	GGATTTTAAA	ATGCCAAAGA	AAGATTCCAT	CATACCGTTG	5220
TCTTGGCTGT	TTCCCTTGCG	TGACATAGAT	GCTTGAATTC	CCTTATTCTC	TAGGAACCGA	5280
TGATAAGAAT	CGTGTGGTA	TTGCCAGCCT	TGGTCACTAT	GGAGAATCGT	ATTCTCGTAG	5340
TGCTTCTCTT	TGAATGCCTG	TTCCAACATT	GTTTGTACTT	ATTCTAAATT	AGGCGAACAA	5400
GAAAGATTAA	AAGCAATAAT	TTCGCTGTTA	AAGCCATCTA	AAACTGGTGA	TAAGTAAAGC	5460

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TTTTGAGTAC TTGCTGGAAT GGCAAATTCA GTCACATCTG TGTAGCACTT TTCCATTGTT      5520
TTAGAGCCTT CAAATTGGGC TTGAATGAGA TTCTCTGCCT TCTTACCAAC GTCTCCTTTA      5580
TGAGAAGAAT ATTTTCGTTT CTTTCGCATT TTAGCTTGTA AATTGAGTAC TTTCATCAAG      5640
CCTTGAAGTC TTTTATGATT TACCAGATAA CCACGATTTC TTAGTTCTAA ATGAACCCGG      5700
CGATAAGCAT AATTTCCCTT GTGTTTCGATA AAGATGGATT GAATTTTCAGT TTTAAGCTCT      5760
TGGTCTTTAT CTGTTTTGTC TAGCTGTTTC AAGTGATAGT AGTAGGTCCA ACGAGCTAGT      5820
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GTCTTTCTTC TTTCTCTTTT TCCTCCTTCA ATCGGAGTTC TCTTAACCTT TTTAGGATGG      5940
CATTCTCCGC TCTCAGGTAC TCTCCCTCTT GTTTTCTCAA CAATAGTATA CCCGTTTTTC      6000
CTGTATTGTG CTAGCCAGTT AAGAAGTATC GTACGACTTG GGAGACCGTA TTCAAGAGAA      6060
ACTCTATCTT TAGTCCAGCC TTCATGTCAG ACTTTATTAA CCCCATTAT TCACCCCAA      6120
TCTAAAACC ATCCAGAATC CTTGCCTTAG CTTAGATCCT GGATGGTTTC TTTTTTCACC      6180
CAATGGGTGT TTTTACTAG AAAAAAAGA GTTTCCCCTT TATGGTATAA GTGTAGAAAA      6240
AAACACAAA AGAAAGGAAA CTCACATGAA CAGTTTACCA AATCATCACT TCCAAAACAA      6300
GTCTTTTAC CAACTATCTT TCGATGGAGG TCATTTAACC CAGTATGGTG GTCTTATCTT      6360
TTTTTCAGGAA CTTTTTTCCC AGTTGAACT AAAAGAGCGG ATTTCTAAGT ATTTAGTAAC      6420
GAATGAmCAA CGCCGCTACT GTCGTTATTC GGATTCAGAT ATCCwTGTCC AGTTCCTCTT      6480
TCAACTGTTA ACAGGTTATG GAACGGAATA TGCTTG      6516

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(2) INFORMATION FOR SEQ ID NO: 106:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14654 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 106:

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TTTTCAACCC ATATCGTGGC TCCTGAATAC TACTTACTGA CAACTATGCT ATCAGAGACT      60
TCTCTACTTG TTTTCTATAT CATTTTCATC CATAGAAAAC AACTCATCCA CTGGGACAT      120
ATCTTTAGCT ATACTGTTTCG ATACTCTCTC TTTTCACTTT CCTTGTAGC AATTTATTTC      180
CTGATTAATT TCGTGTATCC TGTAGATATG GTCATTAATT TGCCATTTT GATTAATACT      240
GGTTTGATTG TCTTGCTATC AGCTATCTCT TATATTAGTC TACTTGCTCT CACAAAAGAT      300

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AGCATTCTTCT ATGAATTTT AAACCATGTC CTAGCCTTAA AAAATAAAAT TAAAAAATCA	360
TAGGAGTTTA AAATGAAACA ACTAACCGTT GAAGATGCCA AACAAATTGA ATTAGAAATT	420
TTGGATTATA TTGATACTCT CTGTAAAAAG CACAATATCA ACTATATTAT TAACTACGGT	480
ACTCTGATTG GGGCGGTTCG ACATGAGGGC TTTATCCCTT GGGACGACGA TATTGATCTG	540
TCCATGCCTA GAGAAGACTA CCAACGATTT ATTAACATTT TTCAAAAGGA AAAAAGCAAG	600
TATAAGCTCC TATCCTTAGA AACTGATAAG AACTACTTTA ACAACTTTAT CAAGATAACC	660
GACAGTACGA CTAAAATTAT TGATACTCGA AATACAAAAA CCTATGAGTC TGGTATCTTT	720
ATCGATATTT TCCCTATAGA TCGCTTTGAT GATCCTAAGG TCATTGATAC TTGTTATAAA	780
CTGGAAAGCT TCAAACTGCT GTCTTTTCAGT AACATAAAA ATATTGTCTA TAAGGATAGC	840
CTTTTAAAAAG ATTGGATACG AACAGCCTTC TGGTTACTCC TTCGACCGGT TTCTCCTCGT	900
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GTACAAGCGT CATGATACCA GCCTTTTCAT CGATGTCTTC CCAATTGATC GATTTACAGA	1560
CTTGAGCATT GTCGACAAGA GCTATAAGTA TGTGGCTCTT CGTCAACTAG CTTATATCAA	1620
AAAATCACGA GCAGTTCACG GTGATAGCAA ACTAAAAGAT TTTCTTAGAT TATGTAGCTG	1680
GTACGCTCTC CGATTTGTCA ATCCTCGCTA CTTTACAAG AAAATTGATC AACTAGTCAA	1740
AAATGCTGTA ACCAACACTC CTCAATATGA AGGAGGAGTT GGGATCGGTA AGGAAGGGAT	1800
GAAAGAAATC TTCCCAAGTT ATACCTTTAA AGAACTGATT TTAAC TGAGT TTAGGGCCG	1860
TATGTTGCCT GTTCCCAAAA AATATGACCA ATTTTAAACC CAGATGTATG GCGATTATAT	1920
GACACCACCA TCAAAAGAAA TGCAAGAGTG GTATAGTCAT AGCATTAAAG CTTATCGCAA	1980
AAACTGATTG AGGGGGATTA TACAACTAC TAAGATAGAG GTTATTCAAA AACATAATTT	2040
TAGTAGAAAA TGAAATACAT ATTCCACAA TAAAACGCAT CATATCAAGG TTTTGTAAAA	2100

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ACCTTGATAT	GATGCGTTTT	ATAATTTTAA	AGACTTTTTT	CTATAGTAGA	TTGAAATAAG	2160
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GTACTGTTCT	AAATTCAGTC	TGCTATATCT	TATTTTCTA	TTTAAATCGC	TTCTGTAACA	2280
AAGCTACGAC	TTTCAAGTAC	CTTAAGCATG	GCATTAGCTG	TATCTAGCGC	TGTGAAGAGG	2340
GGCACCCCGT	GTTCAATGGC	TGAACGACGA	ATTTGCTCAC	CATCTTCGTC	AGCAGTTCGT	2400
TTTGTTCCTA	CTGTGTTAAT	GATAGCTTGA	ATTCTTCCTT	TGCGTACAAA	ACTTGGGATA	2460
TCCTTATCGT	CATCACCAAT	CTTACCAACA	GGTTGGGCTT	GCAAGCCATG	ACTAGCAAAG	2520
AAGGCTGCTG	TCCCTTCTGT	CGCAAGGATT	CCATAACCAA	TGTTTTGGAA	ACGACGAGCC	2580
AAGTTCAAGG	CTTCTTCTTT	GGCATCATCA	GCGATGGTAA	AGACGACATT	ACCAAAAAGTT	2640
GGCAAGTGTA	GATAAGAAGC	TTCAAAGGCT	TTATAGAGAG	CTTTTTCCAA	AGTAGCATCA	2700
GAACCCATAA	CTTCACCTGT	TGACTTCATT	TCAGGACCGA	GCAAGCTGTC	TACCTTAGCT	2760
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ACCTCAATAA	CGTAGACTTT	TTCATCCTTG	ATAACAACT	GGATGTTTAT	CATTCCAAGG	3000
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GACAAGGTTT	GTGGTGGGTA	AACAGCCATT	GAGTCACCTG	AGTGGACACC	AGCACGTTCTG	3120
ATATGCTCCA	TGATACCAGG	AATGAGTACA	TTTTTACCAT	CTGAAATGGC	ATCAACTTCG	3180
CACCTCTGCC	CAACGATATA	AGAGTCGACA	AGAACTGGGT	GGTCTGGACT	AGCCTTAACA	3240
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GCTTGCTCGA	AGAGGTCACG	GTCTTCGGCA	CGATCTAGGT	CAGCAACCTG	TGTACCAAGG	3480
ATGGTCACAC	CTGCTTTTGC	CAATGGCTCC	GCAAGGTTGA	TGGCTGTTTG	ACCACCGAAC	3540
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GCGTAGTCAA	ACTCAACCCC	TTGACCGATA	CGGATTGGAC	CTGAACCTAG	GACAAGTACA	3780
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784

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TTTGTAAGCT CTGCAATTTC TTCAGGTGTG TAGCCACGAC GAATGGCTTC TGATACGTAG	4140
AAGAGACGGT CATCTTGGGC TTTGACAACC TTTTCAATCA AGGCATCATC AGAACTGCT	4200
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GAATTTTAGG AAATCAAGGA AGGATTGACA ATCCAAGTTG GTTTCTCTAC ATTCTGAGCT	5700
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TCGCGGCTGA CTGCATAACC ATGGTTCTGG CTGGTGAAGT CTACTCGTCC TGTTCGATT	6000
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GATTCAAAAAG ACCAGGCAAA CCGTTATTTT CATTTCCCAT GATGAAGACT TTCTTTCTGA	11040
AACGGCAGAC ACTATTGTTC ACTTGCGACT GGTCAAACAC CGTAAAGAAG CGGAAACGCT	11100
AGTAGAGCAT TTAGACTATG ATAGCTATAG TGAGCAGAGA AAGGCTAATT TTGCCAAACA	11160
AAGTCAGCAA GCTGCTAACA ACCAAAGAGC CTACGATAAA ACCATGGAAA AACATCGGAG	11220
AGTTAAGCAA AATGTAGAAA CTGCGCTTCG AGCTACCAAA GATAGTACTG CCGGTCGCCT	11280
ATTGGCTAAA AAGATGAAAA CTGTCCTCTC ACAAGAAAAA CGCTACGAAA AGGCAGCTCA	11340
GTCCATGACT CAAAAGCCAC TTGAAGAGGA ACAAATCCAA CTTTTCTTTT CAGACATCCA	11400
ACCATTACCA GCTTCTAAAG TCTTAGTCCA ACTGGAAAAA GAAAATTTGT CCATTGACGA	11460
CCGAGTTTTC GTTCAAAAAC TACAACCTAAC TGTCCGTGGC CAAGAAAAAA TCGGTATTAT	11520
CGGGCCAAAT GGTGTTGGGA AATCAACTCT GTTAGCCAAG TTACAGAGAC TTCTGAATGA	11580
TAAAAGAGAG ATTTCACTTG GTTTTATGCC ACAAGATTAC CACAAAAAAC TGCAATTGGA	11640
TTTATCCCA ATAGCCTATC TCAGTAAAC TGGGGAAAAA GAGGAACTAC AGAAAATCCA	11700
ATCTCACCTA GCTAGTCTCA ATTTCACTTA TCCAGAAATG CAGCATCAA TTCGCTCCTT	11760
ATCTGGCGGA CAACAGGGAA AACTCCTGCT TTTGGATTGA GTCCTGCGCA AACCAAACTT	11820
TCTCCTGCTG GATGAACCCA CACGAACTT TTCTCCCACT TCTCAACCCC AAATCAGAAA	11880
ACTCTTTGCT ACCTATCCAG GCGGTCTCAT CACTGTTTCG CATGACCGTC GTTCTTTAAA	11940
AGAAGTCTGC TCGATCATCT ATCGCATGAC AGAACACGGT TTGAAGCTAG TTAATTTAGA	12000
AGATTTATAA ATTTGCAACA TAGCAAAAAT CCAGAGACGA CCTCTGGATT CTTTACATC	12060
TGTTTTAAAC GTTCAATCCG TTCTGAGATA GGTGGGTGGG TATAAAAGAG TTTTGGAAC	12120
CCCCCACCTT TCTTAGGATC ATTGATATAA AGGGCACTGC TAGCATCATC GACGTGGCGA	12180
CTCATAGGTT TGCTATTGTC CAACTTATCT AGGGCATTAA TCATTCCCTG GGGATTGCGA	12240
GTCAGCTCGA CACTAGATGC ATCTGCCAGA AATTCCCTCT GACGAGAAAT AGCGAGCTGA	12300
ACCAAGGTTG CAGCGAGAGG TGCCAGTACA ATAGCTAGTA GGGAAACCAC TAGCATAATG	12360
ATTTCAAGAC CATTTCCATC TCGGTCATCA TCACTTCGTC TGCGACCTGC TCCACCCAC	12420
CACATCATAC GACCTGCCAT ACTAGAAAGC ATGGTGATAG CACTAGCAAG GGCAACTGCA	12480
ATAGTCGAAA TACGGATATC ATAATTACGA ATATGACTGA CTTTATGTCC CATAACAGCT	12540
TCTAGTTCTT CACGATTCAT GATAGCTAGT AGACCTGAAG TCGCAGCAAC AGCCGCATTT	12600
TGAGGATTAG AACCTGTCGC AAAGGCATTT AAGGCTGGAT CATCAATGAT GAAAACACGG	12660
GGCATAGGAA TCTGAGCGAC CAGAGCCATA TCTTCCACTA CATGGTAGAG GTCTGGTGCC	12720

GTTTGCTCAT	CCACCTCAG	CGCTCCATT	ATGGACATGA	CAATCTCTGT	CGATTGAAAA	12780
ATCATAGACA	AAGCGTAGAT	AAAGCCGATA	ATCAGTGCAA	TAACCAAACC	ACCAAGTCCA	12840
GATCTTATAA	AGAGATAACC	AACCGCATAA	CCAACAAGAG	CTAAGAGTAG	GAAAAATACC	12900
AGCAACAAAA	TCCAGGTTTT	TCGTTTATTG	CTTGCAATTT	GATCAAACAA	CATCTTAGTC	12960
ACCTAAACCG	CTAAATCAA	CTTTAGGAAC	CGACTTTTCC	TCTTCAGGTG	TTTGAAGGAA	13020
ATCTGCCGCT	TTAAATCCAA	ACATTCCAGC	GATAATATTG	CTCGGAAAG	TTTCTAATTT	13080
TACATTGTAG	TTGCTGACAA	CACGTGTATA	GAGTTGACGA	GAGTAAGAAA	TTTTATTTTC	13140
TGTGTTTGTC	AACTCCTCTT	GCAATTTAAC	AAAGTTAGCA	CTAGCTTTCA	AATCTGGATA	13200
GCTTCTGCA	ACTGCAAAAA	TACCTGAAAC	CTGACGAGTG	AGGGCATCAC	TGGCTTTCAT	13260
AGCTTCTGCT	GGTGAAGTCG	CTGCCGCCAC	TTGGTTACGT	AGTTCTGCCA	CCTTTTCAAG	13320
GGTAGAACCT	TCATATTTGG	CATAACCTTT	TACAGTCTCA	ATCAAGTTTG	GCAAGAGGTC	13380
ATTGCGACGT	TTCAACTGAA	CATCAATCTG	ACTCCAAGCC	TCCTTGGTTT	GCATACGATT	13440
TTTAACCAAA	CCGTATAGC	TAACAATCAC	AAAAATAACA	ATAAGAGCGA	TAACCCAAG	13500
AATAATCCAA	GTCATAATAT	AAGTCCTTTC	TGCTTTTAGA	TTAGTACCAG	TATATCAAAT	13560
TTTCTATGAT	TGTGGTAAAA	TAAGATGATA	CTAAGAAGG	AAATAACTAT	GAAACCAAAA	13620
ACATTTTACA	ACTTGCTTGC	CGAGCAGAAT	CTTCCACTTT	CGGACCAGCA	AAAAGAACAA	13680
TTTGAACGTT	ATTTTGAGCT	CTTGGTCGAG	TGGAATGAGA	AGATTAAATTT	GACGCGGATT	13740
ACGGACAAGG	AAGAAGTTTA	TCTCAAACAT	TTTTACGATT	CGATTGCACC	CATTCTTCAA	13800
GGTTTGATT	CCAATGAAAC	TATCAAACCT	CTTGATATCG	GGGCTGGGGC	AGGATTTCCCT	13860
AGTCTACCAA	TGAAAATTCT	CTATCCGGAG	TTAGATGTGA	CCATTATTGA	TTCACTCAAT	13920
AAGCGCATCA	ACTTCCTACA	ACTCTTGGCT	CAAGAAGTGG	ATTTGAACGG	AGTTCATTTT	13980
TACCACGGAC	GTGCCGAAGA	TTTTGCCCAA	GACAAGAACT	TCCGTGCTCA	ATATGATTTT	14040
GTAACAGCTC	GTGCGGTTGC	CCGTATGCAG	GTCTATCTG	AATTGACTAT	TCCCTACCTT	14100
AAGGTTGGTG	GCAAATATT	AGCACTCAAG	GCTAGCAATG	CGCCTGAGGA	ATTATTAGAA	14160
GCTAAGAATG	CCCTCAATCT	CCTTTTLAGT	AAGGTCGAAG	ACAATCTCAG	TACGCCCTAC	14220
CGAATAGAGA	TCCGCGCTAT	ATCACAGTGG	TAGAAAAGAA	AAAAGAAACA	CCAAATAAAT	14280
ATCCACGTAA	GGCTGGTATG	CCAAATAAAC	GCCCACTTTA	AATTTTLAGT	TAAACAAATG	14340
TTTACAAAAT	CAGCCTCGCT	CTTTTATTTT	TAGGCTCGGG	AAAAAATGAT	TTACAAAATC	14400
AGCCTCGCTC	TTTTATTTCT	AGGCTCGGGA	AAAAATGATT	TACAAAATCA	TTTTTTTCTG	14460

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CTATACTATC CTAAGCAAAG GTTTTTAATG TCATCCCGTG AGGTGACGAA GACGCAGAAA	14520
TATTTAAAAC TCTTTAAAAT CTAAATTTTA AAGAAGTCTT ACTCTGAGGG CCTATTGCTG	14580
TAAAATAATG GGCTCTTTTT TGATGCCCAA AAGTGAGGTT TATATGAAAC AAGAATCAAC	14640
TGTTGATTG TTAC	14654

(2) INFORMATION FOR SEQ ID NO: 107:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6405 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 107:

AGAAAAATCT GCTTTACAGA AAATAAAAAT AATAGGAGAA AATCTATGTC AGATTGAAA	60
AAATACGAAG GTGTCATTCC AGCCTTCTAC GCATGTTATG ATGATCAAGG AGAAGTAAGC	120
CCAGAACGTA CGCGTGCCTT GGTTC AATAC TTCATTGATA AAGGTGTTCA AGGTCTTTAT	180
GTCAATGGTT CTTCTGGTGA ATGTATCTAC CAAAGCGTTG AAGATCGCAA GTTGATTTTG	240
GAAGAAGTCA TGGCGGTAGC AAAGGTAAAT TGACCATTAT TGCCCATGTT GCTTGCAATA	300
ATACTAAAGA TAGTATGGAA CTTGCTCGCC ATGCTGAAAG CTTGGGAGTA GATGCTATTG	360
CAACGATTCC ACCAATTTAT TTCCGCTTGC CAGAATACTC AGTTGCCAAA TACTGGAACG	420
ATATCAGTTC TGCAGCTCCA AACACAGACT ACGTGATTTA CAACATTCCT CAATTGGCAG	480
GGGTGCTTT GACTCCAAGC CTTTACACAG AAATGTTGAA AAATCCTCGT GTTATCGGTG	540
TGAAGAACTC TTCTATGCCA GTTCAAGATA TCCAAACCTT TGTCAGCCTT GGTGGAGAAG	600
ACCATATCGT CTTTAATGGT CCTGATGAGC AGTTCCTAGG AGGACGCCTC ATGGGGGCTA	660
GGGTGGTAT CGGTGGTACT TATGGTGCTA TGCCAGAACT CTTCTTGAAA CTCAATCAGT	720
TGATTGCGGA TAAGGACCTA GAAACAGCGC GTGAATTGCA GTATGCTATC AACGCAATCA	780
TTGGTAAACT CACTTCTGCT CATGGAAATA TGTACGGTGT CATCAAAGAA GTCTTGAAAA	840
TCAATGAAGG CTTGAATATT GGATCTGTTC GTTCACCATT GACACCAAGT ACTGAAGAAG	900
ATCGTCCAGT TGTAGAAGCG GCTGCTGCCT TGATTCTGTA AACCAAGGAG CGCTTCCTCT	960
AATCTAAAAG GAGGTATTTA TGACATATTA CGTTGCAATT GATATCGGTG GAACCAACAT	1020
CAAGTATGGT TTGGTTGATC AAGAGGGGCA ACTTCTTGAA TCGCATGAAA TGCCAACTGA	1080
GGCGCATAAG GGTGGACCTC ATATCTTACA AAAGACCAAA GATATCGTAG CTAGTTATTT	1140
AGAAAAAGGC CCAGTAGCAG GTGTTGCCAT ATCTTCTGCT GGGATGGTGG ATCCGGATAA	1200

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GGGTGAGATT TTCTATGCTG GGCCGCAAAT CCCTAACTAC GCAGGCACCC AGTTCAAAAA	1260
GGAAATCGAA GAAAGCTTTA CTATTCCTTG TGAGATTGAA AATGATGTCA ACTGTGCAGG	1320
TCTTGCTGAG GCAGTATCTG GTTCAGGCAA GGGAGCAAGT GTGACACTTT GCTTGACCAT	1380
TGGAACCGGT ATCGGTGGTT GCTTGATTAT GGATAGGAAA GTCTTCCATG GTTTTAGCAA	1440
TTCAGCCTGT GAAGTCGGGT ATATGCATAT GCAGGATGGA GCTTTTCAAG ACTTGGCTTC	1500
TACAACAGCT TTAGTGAAAT ATGTAGCTGA AGCCCATGGA GAAGATGTTG ATCAGTGGA	1560
TGGCCGTAGA ATTTTCAAAG AAGCCACTGA AGGAAACAAA ATCTGCATGG AAGGTATTGA	1620
CCGTATGGTT GACTATCTAG GAAAAGGTCT GGCAAATATT TGCTACGTTG CCAATCCAGA	1680
AGTGGTTATT CTTGGTGGTG GTATCATGGG GCAAGAGGCT ATCCTCAAAC CTAAGATCCG	1740
TACAGCCTTG AAAGAGGCTT TGGTACCAAG TTTAGCAGAA AAAACACGAT TAGAATTTGC	1800
CCATCACCAA AATACAGCAG GGATGTTGGG TGCATATTAT CATTTTAAGA CAAAACAATC	1860
CTAGTTTGGC TCAGCCAAAC TAGGATTTTC TTACACGTTT TTGTCTACGA TAGCCGTTGA	1920
GTTTTTTATT TTCCAGTAG CTATTAAAGA TTTTTCCTT GCTTTCGCGA TTGATTTCCA	1980
AAAAGTAGGC ATAAATCAA TCGATAAAGA AGAGCATAGG AAGTTGAGCG GATATTCGTT	2040
GGATATAGGA GGGTTGGCTG TGGGTGGCTA CAAGAACAGT CTCTGTATAG GTCTGGCTAT	2100
CTTTATTGGG AACACTTGTA AAGAGTACAG TCTTTGCCCC CATCTCCTTA GCATCTAATA	2160
GAATATCTAA AATAGAAGGA GTTGAGCCTG AAAGTGAGAA GCCCAGTACT AGACAATTTT	2220
CATCCATGAT GCTGGTTGTC CAGGCAAAGC CGTCTTGGTC TGTCAAAGCT TCGCAGACCA	2280
CACCTAGTCG CATAAAACGT AATTTCATTT CACGGGCGAC GAGGCCAGAA CTCCCTGTTT	2340
CAAAGAAGTA GATACGCTCA GCATCTTCGA TTAGCTGGGC AATTCGTTCT AGTTGGATTT	2400
CGTCAATCAA GTCTTGTGTT TGTTCCTCA TATTGCTATA ACTTCTGAGG ACTCGTTTGG	2460
TCAGTGGACT GTGCTTGGAG ACTTGGTTGG CTTGATTTTC TGCCTGATGT TGGTATTGGA	2520
AAATAAATTC TCGGTAGCCA GTAAAGCCAC ACTTTTTAGC AAAGCGGTC AAAGCAGCTT	2580
GAGAAATATG TAATTTTTGG GTGACTTGTT GAGAAGATAA ATCATCTGTA ATCGTTTCAG	2640
CTTGCAAAAA ATAGCGAGCG ATTTCTTGTT CTAGGTCTGT CATTTCTTCA AAATGTGAAT	2700
CAATGATAGT TGCATATCT GTTTGTCCA TAGGGAAAGC TCCTTTACAT GAGTCATACT	2760
GGAAGACTAG ATCAGAGAAT AGTCACACTT CATTATAACA CATAATATAA GGATAGATAA	2820
ATAAAAACGC ATCTCTGTTT TAAAAACGAA AAAATCGAAA AAGCTTCTCT CTTTTCCATA	2880
ATTTTCTACT CAAATTGTGG TACAATTAAG AGTAAGATTT TAAGTTAGAA ATGAGACTGA	2940

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TTTGTATGAG	AAAATTTAAC	AGCCATTCTGA	TTCCGATTCTG	GCTTAATTTA	TTGTTTTTCAA	3000
TCGTCATTTT	ACTCTTTATG	ACCATTTATG	GTCGTTTGTT	GTATATGCAG	GTTTTGAACA	3060
AGGATTTTTA	CGAAAAAAG	CTAGCTTCAG	CTAGTCAGAC	CAAGATTACA	AGCAGTTCAG	3120
CCCGTGGGGA	AATTTATGAT	GCTAGTGGA	AACCTTTGGT	AGAAAATACG	TTAAAGCAGG	3180
TTGTTTCCTT	TACGCGTAGC	AATAAAATGA	CGGCTACAGA	CTTAAAAGAA	ACAGCTAAAA	3240
AGTTACTGAC	TTATGTGAGC	ATCAGTTCTC	CAAATTTGAC	AGAACGCCAG	CTGGCGGATT	3300
ACTATTTGGC	TGATCCTGAA	ATCTATAAAA	AAATAGTGGA	AGCTCTCCCA	AGTGAGAAAC	3360
GCTTGGATTG	AGATGGCAAT	CGTCTATCCG	AATCAGAACT	GTATAACAAT	GCGGTCGATA	3420
GTGTACAAAC	GAGTCAACTA	AACTATACAG	AGGATGAAAA	GAAAGAAATC	TATCTTTTTA	3480
GTCAGTTAAA	TGCTGTTGGA	AACTTTGCGA	CAGGAACCAT	TGCGACAGAT	CCTCTAAATG	3540
ATTCTCAGGT	GGCTGTTATT	GCCTCTATTT	CAAAGGAGAT	GCCTGGCATT	AGTATTTCTA	3600
CTTCTTGGA	TAGAAAGGTT	TTGGAAACTT	CCCTTTCTTC	TATAGTTGGG	AGTGTATCCA	3660
GTGAAAAAGC	TGGTCTCCCA	GCGGAAGAAG	CAGAAGCCTA	TCTTAAAAAA	GGCTATTCTC	3720
TAAATGACCG	TGTAGGAACC	TCCTATTTGG	AAAAGCAATA	TGAAGAGACC	TTACAAGGAA	3780
AACGCTCGGT	AAAAGAAATC	CATCTGGATA	AATATGGCAA	TATGGAAAGC	GTGGATACAA	3840
TTGAGGAAGG	TAGTAAGGGA	AACAATATCA	AACTGACCAT	TGATTTGGCT	TTCCAAGATA	3900
GCGTGGATGC	TTTACTGAAA	AGTTATTTCA	ATTCTGAGCT	AGAAAATGGT	GGAGCCAAGT	3960
ATTCTGAAGG	TGTCTATGCA	GTCGCCCTTA	ACCCAAAAAC	AGGTGCGGTT	TTGTCTATGT	4020
CAGGGATTAA	ACATGACTTG	AAAACGGGAG	AGTTGACGCC	TGATTCCTTG	GGAACGGTAA	4080
CCAATGTCTT	TGTTCCAGGT	TCGGTTGTCA	AGGCGGCGAC	CATCAGCTCA	GGTTGGGAAA	4140
ATGGAGTCTT	GTCAGGAAAC	CAGACCTTGA	CAGACCAGTC	CATTGTCTTC	CAAGGTTTCA	4200
CTCCCATCAA	TTCTTGGTAT	ACTCAGGCTT	ACGGTTCATT	CCCTATCACA	GCGGTCCAAG	4260
CTCTGGAGTA	TTCATCAAAAT	ACCTATATGG	TCCAAACAGC	CTTAGGTCTT	ATGGGGCAAA	4320
CCTATCAACC	CAATATGTTT	GTCGGCACCA	GCAATCTAGA	GTCTGCTATG	GAGAAACTGC	4380
GTTCAACCTT	TGGCGAATAT	GGCTTGGGTA	CTGCGACAGG	AATTGACCTA	CCAGATGAAT	4440
CTACTGGATT	TGTTCCCAAA	GAGTATAGCT	TTGCTAATTA	CATTACTAAT	GCCTTTGGGC	4500
AGTTTGATAA	CTATACGCCG	ATGCAGTTGG	CTCAGTATGT	AGCAACTATT	GCAAATAATG	4560
GTGTTTCGTG	GGCTCCTCGT	ATTGTTGAAG	GCATTTATGG	TAATAATGAT	AAGGGAGGAC	4620
TGGGTGACTT	GATTCAGCAA	CTGCAACCGA	CAGAGATGAA	TAAGGTCAAT	ATATCCGACT	4680
CCGATATGAG	CATCTGACAC	CAAGGTTTTT	ATCAGGTTGC	CCATGGTACT	AGTGGATTGA	4740



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CAACTGGACG TGCCTTTTCA AATGGTGCCT TGGTATCCAT TAGCGGAAAA ACAGGTACAG	4800
CCGAAAGCTA TGTGGCAGAT GGTCAGCAAG CAACCAATAC CAATGCGGTG GCCTATGCCC	4860
CATCTGATAA TCCCCAAATC GCTGTGCGAG TGGTCTTTCC TCATAATACC AATCTAACAA	4920
ATGGTGTAGG ACCTTCCATT GCGCGTGACA TTATCAATCT GTATCAAAAA TACCATCCAA	4980
TGAATTAGAA AGGAAATTAT GCTTTATCCA ACACCTATTG CCAAGTTGAT TGACAGTTAT	5040
TCTAAGTTAC CAGGTATCGG GATTAAGACG GCTACGCGTC TGGCCTTTTA TACGATTGGG	5100
ATGTCTGCTG ATGATGTCAA TGAATTGCA AAAAAATCTCC TTTCTGCTAA GAGAGAAATTG	5160
ACATATTGTT CTATTGTGG ACGTTTGACA GACGACGATC CTTGTTCTAT CTGTACTGAT	5220
CCGACTCGTG ACCAGACAAC AATTTTAGTT CTGAGGATA GTAGAGATGT GGCAGCCATG	5280
GAAAATATCC AAGAATACCA TGGACTCTAT CATGTCCTTC ATGGCCTCAT TTCTCCTATG	5340
AATGGTATCA GTCCGGACGA TATCAATCTC AAGAGCCTTA TGACTCGTCT TATGGATAGT	5400
GAGGTTTCAG AAGTGATTGT GGCGACTAAT GCTACAGCGG ATGGTGAAAG GACTTCCATG	5460
TATCTTTCAC GTTTGCTCAA GCCGGCTGGT ATCAAGGTTA CGCGTCTAGC ACGAGGTCTC	5520
GCTGTGGGAG CGGACATTGA GTATGCGGAC GAAGTGACAC TCTTACGAGC CATTGAAAAT	5580
CGGACAGAGT TGTAAGTGTA GGCAAATTTA CGAACTCCAT TCATTTATAA AAAATCAAAG	5640
AGGCTGAAAA TCGTTCCTAT CGGCCTCTTT TTGTATAGTG TGATGAGTAG GCTCAGGTTT	5700
AAGTTTAAAA AAACCAAGCA AATATGATAT ACTAAAGAGC GAGTATTCTA GTAGAATTAG	5760
GACAAATAAT ATGAAACAAA CGATTATTCT TTTATATGGT GGACGGAGTG CGGAACGCGA	5820
AGTCTCTGTC CTTTCAGCTG AGAGTGTCAT GCGTGCGGTC GATTACGACC GTTTCACAGT	5880
CAAGACTTTC TTTATCAGTC AGTCAGGTGA CTTTATCAAA ACACAGGAAT TTAGTCATGC	5940
TCCGGGGCAA GAAGACCGTC TCATGACCAA TGAAACCATT GATTGGGATA AGAAAGTTGC	6000
ACCAAGTGCT ATCTACGAAG AAGGTGCAGT GGTCTTTCCA GTCCTTCACG GGCCAATGGG	6060
AGAAGATGGC TCTGTCAAG GATTCTTGGA AGTTTGTAAA ATGCCTTACG TTGGTTGCAA	6120
CATTTTGTCA TCAAGTCTTG CCATGGATAA AATCAGCACT AAGCGTGTTT TGGAATCTGC	6180
TGGTATTGCC CAAGTTCCTT ATGTGGCTAT CGTTGAAGGC GATGATGTGA CTGCTAAAAAT	6240
CGCTGAAGTG GAAGAAAAAT TGGCTTATCC AGTCTTCACT AAGCCGTCAA ACATGGGGTC	6300
TAGTGTGGT ATTTCTAAGT CTGAAAACCA AGAAGAACTC CGTCAAGCCT TAAAACTTGC	6360
CTTCCGATAT GACAGCCGTG TCTTGTTGA GCAAGGAGTG AATGC	6405

(2) INFORMATION FOR SEQ ID NO: 108:

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- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 11309 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 108:

CGAGCTCGGG TACCGGGATT TTAAGGAGTT TGATATGTAT AACCTATTAT TAACCATTTT	60
ATTAGTATTA TCTGTTGTGA TTGTGATTGC AATTTTCATG CAACCAACCA AAAACCAATC	120
CAGCAATGTA TTTGATGCCA GTTCAGGTGA TTTGTTTGAA CGCAGTAAAG CTCGCGGTTT	180
TGAAGCTGTA ATGCAGCGTT TGACAGGGAT TTTAGTCTTT TTCTGGCTAG CCATTGCCTT	240
AGCATTGACG GTATTATCAA GTAGATAAGA AAATAATGGG CAGGACTAGG TCTTTGCCTC	300
TTTTTATTTT TAAAGGATGT TTGAGAAGGT TTTACAGTAA AAGAAAATTA AAAAATCTAG	360
AAAGAAAATA TGAAAGATAG AATAAAAGAA TATTTACAAG ACAAGGGAAA GGTGACTGTT	420
AATGATTTGG CTCAGGCTTT GGGAAAAGAC AGTTCCAAGG ATTTTCGTGA GTTGATTAAA	480
ACCTTGTCCT TAATGGAAAG AAAGCACCAA ATTCGTTTGG AAGAAGATGG TAGTCTGACA	540
TTAGAAATTA AGAAAAACA TGAGATTACC CTCAAGGGGA TTTTTCATGC CCATAAAAAAT	600
GGCTTTGGCT TTGTTAGTCT GGAAGGCGAG GAGGACGACC TTTTGTAGG GAAAAATGAT	660
GTCAACTATG CTATTGATGG TGATACCGTC GAGGTAGTGA TTAAGAAAGT CGCTGACCGC	720
AATAAGGGAA CAGCAGCAGA AGCCAAAATT ATTGATATCC TAGAACACAG TTTGACAACA	780
GTGTGCGGGC AAATCGTTCT GGATCAGGAA AAACCTAAGT ATGCTGGCTA TATTCGTTCA	840
AAAAATCAGA AAATCAGTCA ACCGATTTAT GTTAAGAAAC CAGCCCTAAA ATTAGAAGGA	900
ACAGAAGTTC TCAAAGTCTT TATCGATAAA TACCCAAGCA AGAAACATGA TTTCTTTGTC	960
GCGAGTGTTT TCGATGTAGT GGGACACTCA ACGGATGTCG GAATTGATGT TCTTGAGGTC	1020
TTGGAATCAA TGGACATTGT ATCCGAGTTT CCAGAAGCTG TTGTTAAGGA AGCAGAAAGT	1080
GTGCCTGATG CTCCGTCTCA AAAGGATATG GAAGGTCGTC TGGATCTAAG AGATGAAATT	1140
ACCTTTACCA TTGACGGTGC GGATGCCAAG GACTTGGACG ATGCAGTGCA TATCAAGGCT	1200
CTGAAAAATG GCAATCTGGA GTTTGGGGTT CACATCGCAG ATGTTTCTTA TTATGTGACC	1260
GAGGGGTCTG CCCTTGACAA GGAAGCCCTT AACCGTGCGA CTTCTGTTTA CGTGACAGAC	1320
CGAGTGGTGC CAATGCTTCC AGAACGACTA TCAAATGGCA TCTGCTCTCT CAATCCCCAA	1380
GTTGACCGCC TGACCCAGTC TGCTATTATG GAGATTGATA AACATGGTCG TGTGGTCAAC	1440
TATACCATTA CACAAACAGT TATCAAGACC AGTTTTCGTA TGACCTATAG CGATGTCAAT	1500

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GATATCCTAG CTGGCGATGA AGAAAAGAGA AAAGAATATC ATAAAATTGT ATCAAGTATC	1560
GAAGTCATGG CCAAGCTTCA TGAACTTTA GAAACATGC GTGTGAAACG TGGAGCTCTC	1620
AATTTTGATA CCAATGAAGC GAAGATTTTA GTGGATAAAC AAGGTAAGCC TGTTGATATC	1680
GTTCTTCGGC AGCGTGGTAT TGCCGAGCGG ATGATTGAGT CTTTATGTT GATGGCTAAT	1740
GAAACAGTTG CCGAACATTT CAGCAAGTTG GATTTGCCTT TTATCTATCG AATTCACGAG	1800
GAGCCTAAGG CTGAAAAGGT TCAGAAGTTT ATTGATTATG CTTGAGTTT TGGCTTGCGC	1860
ATTTATGGAA CTGCCAGTGA GATTAGTCAG GAGGCACTTC AAGACATCAT GCGTGCTGTT	1920
GAGGGAGAAC CTTATGCAGA TGTATTGTCC ATGATGCTTC TTCGCTCTAT GCAGCAGGCT	1980
CGTTATTCGG AGCACAATCA CGGCCACTAT GGAAGTCTG CTGACTATTA TACTCACTTT	2040
ACCAGTCCAA TTCGTCGTTA TCCAGACCTT CTTGTTTACC GTATGATTTC GGATTACGGC	2100
CGTTCTAAGG AAATAGCAGA GCATTTTGAA CAAGTGATTC CAGAGATTGC GACCCAGTCT	2160
TCCAACCGTG AACGTCGTC CATAGAAGCT GAGCGTGAAG TCGAAGCCAT GAAAAGGCT	2220
GAGTATATGG AAGAATACGT GGGTGAAGAG TATGATGCAG TTGTATCAAG TATTGTCAAA	2280
TTGCGTCTCT TTGTCGAATT GCCAAACACA GTTGAAGGCT TGATTACAT CACTAATCTG	2340
CCTGAATTTT ATCATTTCAA TGAGCGTGAT TTGACTCTTC GTGGAGAAAA ATCAGGTATC	2400
ACTTTCGAG TGGGTCAGCA GATCCGTATC CGTGTGAAA GAGCGGATAA AATGACTGGA	2460
GAGATTGATT TTTCATTCGT ACCTAGTGAG TTTGATGTGA TTGAAAAGG CTTGAAACAG	2520
TCTAGTCGTA GTGGCAGAGG GCGTGATTCA AATCGTCGTT CGGATAAGAA GGAAGACAAG	2580
AGAAAATCAG GACGCTCAA TGATAAGCGT AAGCATTCAC AAAAAGACAA GAAGAAAAA	2640
GGAAAGAAAC CTTTTTACAA GGAAGTAGCT AAGAAAGGAG CCAAGCATGG CAAAGGGCGA	2700
GGGAAAGGTC GTCGCACAAA ATAAAAAGGC ACGCCACGAC TATACAATCG TAGATACGCT	2760
AGAGGCAGGG ATGGTCTTGA CTGGAAGTGA AATCAAGAGT GTACGAGCTG CTCGAATTAA	2820
TCTCAAGGAT GGCTTTGCTC AAGTGAAAAA TGGAGAAGTT TGGCTGAGCA ATGTTTCATAT	2880
CGCGCCTTAC GAAGAGGGCA ATATCTGGAA CCAGGAACCA GAACGTCGTC GTAAACTCCT	2940
GCTCCATAAA AAGCAAATTC AAAAATTGGA ACAAGAGATC AAAGGGACAG GAATGACCTT	3000
AGTTCCCTT AAGGTCTATA TAAAGATGG CTACGCTAAG CTTCTTTTAG GACTTGCCAA	3060
AGGGAAGCAT GACTATGACA AACGGGAGTC TATCAAACGT CGTGAGCAAA ATCGAGATAT	3120
CGCGCGTGTG ATGAAAGCTG TTAATCAGCG ATAAAAAGAG GAATTGAAAA TGGAAAAATT	3180
AGTTGCCTAT AAACGCATGC CTTTGTGGAA TAAACAAACA ATGCCTGAAG CTGTTTACGA	3240

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AAAGCACAAT	ACAAAAGTTG	GGACTTGGGG	GAAAATTACT	GTCTTGAAGG	GAGCTCTCAA	3300
GTTTATTGAA	TTGACAGAAG	AAGGGGAAGT	TCTAGCTGAA	CACCTCTTTG	AAGCAGGGGC	3360
AGACAATCCA	ATGGCCCAAC	CTCAAGCCTG	GCACCGAGTG	GAAGCTGCCA	CAGATGATGT	3420
GGAATGGTAC	TTGGAATTTT	ATTGTAAACC	TGAGGATTAT	TTTGCTAAAA	AATACAATAC	3480
CAATCCTGTT	CATTCAGAGG	TCCTAGAGGC	CATGCAGACA	GTGAAACAAG	GGAAAGCTTT	3540
GGATTTGGGT	TGTGGTCAGG	GGCGTAATTC	TCTTTTCTA	GCCCAGCAAG	ATTTTGATGT	3600
GACGGCTGTA	GATCAAAATG	GA CTAGCTCT	TGAAATCTTG	CAAAGCATTG	TGGAGCAGGA	3660
AGATTTGGAC	ATGCCTGTTG	GCCTTTACGA	TATCAATTCA	GCTAGCATTG	AACAAGAATA	3720
TGATTTTATC	GTTTCAACAG	TTGTCTCAT	GTTTCTACAA	GCGGACCGCA	TTCCAGCTAT	3780
TATTCAAAAT	ATGCAGGAGA	AAACCAGTGT	TGGTGGTTAC	AACCTTATCG	TTTGTGCCAT	3840
GGACACGGAG	GATTATCCTT	GCTCGGTAA	CTTCCCATT	ACCTTTAAAG	AAGGAGAACT	3900
GGCAGACTAT	TACAAGGATT	GGGAATTGGT	TAAGTACAAT	GAAAATCCAG	GCCATTTGCA	3960
CCGTCGCGAT	GAGAATGGCA	ATCGTATTCA	ACTACGCTTT	GCGACCTTAC	TAGCTAAGAA	4020
AATCAAGTAA	ACACACATGA	AGATTAGGAA	TTTTCCTGAT	CTTTTTTCTT	TTTACGAAT	4080
GATATAGAAA	AGGAGGGAAT	TCATGTTTGT	TGCGAGAGAT	GCTAGGGGAG	AATTGGTAAA	4140
TGTGTTAGAG	GATAAACTTG	AGAAGCAAGC	ATACACCTGC	CCAGCTTGTG	GAGGCCAGCT	4200
CCATTTGCGT	CAAGGACCAA	GTGTACGGAC	GCATTTTGCC	CATAAATCCT	TAAAAGACTG	4260
TGATTTTTC	TTTGAAAATG	AAAGTCCAGA	ACACCTGGCC	AATAAGGAAT	CCCTCTATCA	4320
CTGGTTGAAA	AAAGAGACAA	AGGTTCAATT	AGAGTACCCG	CTTTCAGAAC	TTAAACAGAT	4380
TGCGGATGTA	TTTGTAATG	GCAATCTAGC	TCTAGAAGTT	CAGTG TAGTC	CCTTGCC TCA	4440
GAAAGTCCTT	AAAGAGCGAA	GTGAGGGCTA	TCGTAGTCAG	GGTTACCAAG	TACTGTGGTT	4500
GCTGGGTCAA	AAACTGTGGC	TCAAGGAGCG	TTTGACTCGT	CTACAGCAAG	GTTTTCTTTA	4560
TTTCAGTCAA	AACATGGGCT	TTTATGTTTG	GGAATTAGAC	AAGGAAAAAC	AAGTTTAAAG	4620
ACTCAAATAC	CTGATTTACC	AGGATCTCCG	CGGTAAACTC	CATTATCAAA	TCAAGGAATT	4680
TTCTTATGGT	CAAGGTAGTT	TATTGGAAAT	ATTGCGTCTT	CCCTATAAGA	GACAAAAAAT	4740
ATCTCATTTT	ACAGTTTCTG	AGGACAAGGA	CATCTGTGCG	TATATCCGGC	AACAAC TT A	4800
TTATCAAAAT	CTCTTTTGGA	TGAAAGAACA	AGCAGAAGCC	TATCAAAAGG	GAGAAAATAT	4860
CCTGACTTAT	GGACTGAAAG	AATGGTATCC	ACAAATTCGA	CCAATAGTGG	GCAAATTTT	4920
CCAGATTGAA	CAAGACTTGA	CTAGCTATTA	TCAGCACTTT	TATACCTATT	ACCAAAAAAA	4980
TCCTCAAAAT	GATTGGCAAA	AGCTTTATCC	ACCAGCCTTT	TATCAGCAAT	ATTTCTTGAA	5040

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AAATATGGTA GAATAGAAAG GATGGAGGAA TCTAATGGTA TTACAAAGAA ATGAAATAAA	5100
TGAAAAAGAT ACATGGGATC TATCAACGAT CTACCCAACT GACCAGGCTT GGAAGAAGC	5160
CTTAAAGAT TTAACAGAAC AATTGGAGAC AGTAGCCCAG TATGAAGGCC ATCTCTTGGA	5220
TAGTGCGGAT AACCTACTAG AAATCACTGA ATTTTCTCTT GAAATGGAAC GCCAGATAGA	5280
GAAGCTTTAC GCTTATGCTC ATATGAAGAA TGACCAGGAT ACACGTGAAG CTAAGTATCA	5340
AGAGTACTAT GCCAAGGCCA TGACACTCTA CAGCCAGTTA GACCAAGCCT TTTCATTCTA	5400
TGAGCCTGAA TTATGGAGA TTAGCGAAAA GCAGTATGCT GACTTTTTAG AAGCTCAACC	5460
AAAGCTGCAG GTTATCAAC ACTATTTTGA CAAGCTTTTG CAAGGCAAGG ATCACGTTCT	5520
TTCAACAACGT GAAGAAGAAT TATTGGCTGG AGCTGGAGAA ATCTTTGGTT CAGCAAGTGA	5580
AACCTTCGCT ATCTTGACA ATGCGGATAT TGTGTTCCCT TATGTCCTAG ACGATGATGG	5640
TAAAGAAGTT CAGCTATCTC ATGGGACTTA CACACGTTTG ATGGAGTCTA AAAAACGTGA	5700
GGTTCGCCGT GGTGCCTATC AAGCTCTTTA TCGGACTTAC GAACAATTCC AACACACCTA	5760
TGCCAAAACC TTGCAAACCA ATGTTAAGGT GCAAAATTAC CGTGCTAAAG TTCGTAACCTA	5820
CAAGAGTGCT CGTCATGCAG CCCTCGCAGC GAATTTTGTT CCAGAAAGTG TTTATGACAA	5880
TTTGGTAGCA GCAGTTCGCA AGCATTTGCC ACTCTTACAT CGTATCTTG AGCTTCGTTT	5940
AAAAATCTTG GGGATTTTCA ATCTCAAGAT GTACGATGTC TACACACCGC TTTCATCTGT	6000
TGAATACAGT TTTACCTACC AAGAAGCCTT GAAAAAGCA GAAGATGCTT TGGCAGTCTT	6060
GGGTGAGGAT TACTTGAGCC GTGTTAAACG TGCCTTCAGC GAGCGTTGGA TTGATGTTTA	6120
CGAAAATCAA GGCAAGCGTT CAGGTGCCTA CTCTGGTGGT TCTTATGATA CCAATGCCTT	6180
TATGCTTCTC AACTGGCAAG ACAATCTGGA CAATCTCTTT ACTCTTGTTT ATGAAACAGG	6240
TCACAGTATG CATTCAGCT ATACTCGTGA AACTCAGCCT TATGTTTACG GGGATTACTC	6300
TATCTTTTGG GCTGAGATTG CCTCAACTAC CAATGAAAAT ATCTTGACGG AGAAATTATT	6360
GGAAGAAGTG GAAGACGACG CAACACGCTT TGCTATTCTC AATAACTTCC TAGATGGTTT	6420
CCGTGGAACA GTTTTCCGCC AAATCAATT TGCTGAGTTT GAACACGCCA TTCACCAAGC	6480
AGATCAAAAT GGGGAGGTCT TGACAAGCGA TTTCCTAAAT AAATCTCTACG CAGACTTGAA	6540
CCAAGAGTAT TATGGTTTGA GTAAGGAAGA CAATCCTGAA ATCCAATACG AGTGGGCTCG	6600
CATTCCACAC TTCTACTATA ACTACTATGT ATATCAATAT TCAACTGGCT TTGCGGCCGC	6660
CTCAGCCTTG GCTGAAAAAA TTGTCCATGG TAGTCAAGAA GACCGTGACC GCTATATCGA	6720
CTACCTCAAG GCAGGTAAGT CGGACTATCC ACTTAATGTC ATGAGAAAAG CTGGTGTGTA	6780

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TATGGAGAAG GAAGACTACC TCAACGATGC CTTTGCAGTC TTTGAACGCC GTTTAAATGA	6840
GTTTGAAGCC CTTGTTGAAA AATTAGGATT GGCATAAAAT GGTGAATCG TATAGTAAGA	6900
ATGCTAACCA TAACATGCGT CGTCCTGTCG TCAAAGAAGA AATTGTAGAC TTGATGCGTC	6960
AGCGTCAAAA GCAGGTCACA GGTTCCTTGA AAGAATTGGA AGACTTTGCC CGCAAGGAAA	7020
ATATTCCTAT TATTCCTCAT GAAACGGTTG CTTATTTCCG TTTCTTATG GAAACCATGC	7080
AGCCTAAAAA TATTCTGGAA ATTGGGACGG CTATCGGTTT TTCAGCTCTC TTGATGGCTG	7140
AACATGCGCC AAATGCTAAG ATTACAATA TTGATCGTAA TCCAGAAATG ATTGGTTTGT	7200
CCAAGGAAAA TTTTGCCAG TTTGACAGTC GCAAGCAAAT CACTCTCCTA GAGGGAGATG	7260
CGGTGGATGT CTTATCTACA CTGACAGAGT CTTATGATTT CGTCTTTATG GATTCTGCCA	7320
AGTCTAAATA CATCGTCTTT CTGCCAGAAA TCCTCAAACA TTTGGAAGTT GGTGGTGTGG	7380
TTGTCTTGGA TGATATTTT CAAGGTGGTG ATGTTGCCAA GGATATTATG GAAGTCCGTC	7440
GTGGTCAGCG AACCATTTAT CGAGGCCTTC AAAAATTATT TGATGCAACC TTAGACAATC	7500
CAGAACTCAC CGCAACATTA GTGCCTTTAG GAGATGGTAT TCTCATGCTT CGTAAAAATG	7560
TAGCAGATGT TCAACTGTCT GAAAGCGAAT GATTTTCAGA AAAATTTAAG AAAAAATAGT	7620
AAAAATAGATA GAGTAACACT TATCTCAAAG GAGTAGACAT GAAGAAAAAA TTATTGGCAG	7680
GTGCCATCAC ACTATTATCA GTAGCAACTT TAGCAGCTTG TTCGAAAGGG TCAGAAGGTG	7740
CAGACCTTAT CAGCATGAAA GGGGATGTCA TTACAGAACA TCAATTTTAT GAGCAAGTGA	7800
AAAGCAACCC TTCAGCCCAA CAAGTCTTGT TAAATATGAC CATCCAAAAA GTTTTGTGAA	7860
AACAATATGG CTCAGAGCTT GATGATAAAG AGGTTGATGA TACTATTGCC GAAGAAAAAA	7920
AACAATATGG CGAAAACTAC CAACGTGTCT TGTACAAGC AGGTATGACT CTTGAAACAC	7980
GTAAAGCTCA AATTCGTACA AGTAAATTAG TTGAGTTGGC AGTTAAGAAG GTAGCAGAAG	8040
CTGAATTGAC AGATGAAGCC TATAAGAAAG CCTTTGATGA GTACACTCCA GATGTAACGG	8100
CTCAAATCAT CCGTCTTAAT AATGAAGATA AGGCCAAAGA AGTTCTCGAA AAAGCCAAGG	8160
CAGAAGGTGC TGATTTTGCT CAATTAGCCA AAGATAATTC AACTGATGAA AAAACAAAAG	8220
AAAATGGTGG AGAAATTACC TTTGATTCTG CTTCAACAGA AGTACCTGAG CAAGTCAAAA	8280
AAGCCGCTTT CGCTTTAGAT GTGGATGGTG TTTCTGATGT GATTACAGCA ACTGGCACAC	8340
AAGCCTACAG TAGCCAATAT TACATTGTAA AACTCACTAA GAAAACAGAA AAATCATCTA	8400
ATATTGATGA CTACAAAGAA AAATTAAAAA CTGTTATCTT GACTCAAAAA CAAAATGATT	8460
CAACATTTGT TCAAAGCATT ATCGGAAAAG AATTGCAAGC AGCCAATATC AAGGTTAAGG	8520
ACCAAGCCTT CCAAAATATC TTTACCCAAT ATATCGGTGG TGGAGATTCA AGCTCAAGCA	8580

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GTAGTACATC	AAACGAATAG	TCCAAATCAA	TGAGTCAGGG	AAAAAACTCG	ACTTCAGGAA	8640
AAAATGAAGC	AAACATTCCC	ACAATAAAAC	GCATAGTACA	AGGTTTGTAC	TGCCCCCCAA	8700
AAAGTTAGAC	AATTAATTTA	TCCGAAGGAT	TTAGTTCTGT	ATTGCACAGA	GCTAAGTCCT	8760
TTTAGTTTTA	TCTTAATTCT	CTTATTGTTG	TAATAATCAA	TATAGTCTAT	AATGGCTCGT	8820
TCCAATTGAT	TAAGTGATTT	AAATGTTTTC	TCATAGCCAT	AAAACATTTT	GGATTTTAAA	8880
ATGCCAAAGA	AAGATTCCAT	CCTACCGTTG	TCTTGGCTGT	TGCCCTTACG	TGACATGGAT	8940
GCTTGAATTC	CCTTACTCTC	TAGGAAGCGA	TGATAAGAAT	CGTGTTGATA	TTGCCAGCCT	9000
TGGTCACTAT	GGAGAATCGT	ATTCTCGTAG	TGCTTCTCTT	TGAATGCCTG	TTCCAACATT	9060
AACGATCAAT	CAATTTAATC	ATGTACCTAA	GATTAGAATT	GTTTATCCCA	AATTTATTTG	9120
AAAGCTTCTC	TAAGCTATAT	CCTTGTTTTT	TAAGTTCATA	GATCTGAAC	TTATCATCAT	9180
AAGTTAATTT	CATAATAAAA	ACACCCCAAA	AGTTAGATTT	TTTCTGTCTA	ACTTTTGGGG	9240
TGTAGTTCAT	GTACACCTGA	TATGATGCGT	TTTATAATTT	TAAAGACTTT	TTGACCAGCC	9300
TCATTTTTTT	AACTTGATAC	TCAGTGAAAA	GCAAAGATTA	AACTAGGAAG	CTAGCTGTAG	9360
GCTGCTCAA	GAACAGCTTT	GAGGTGTAG	ATAAACTTG	TGAGGTCACC	AACATATATA	9420
ATGTGAAGCT	GACGTGGTTT	GAATAGATTT	TAGAAGAGTA	TGAGTCTGGA	AGTTTTAATG	9480
GATAATGCAA	GATTCCATAG	AATGGGTAAG	CTAGAGTTCT	TATGTGAAGA	GTTTGGGCAT	9540
AAACTTTTAC	CTTTTCCTCC	CTACTCATCT	TAGTATAGAA	AAGTGAATCT	GAAATAGTAC	9600
ATAACTGCTT	CTAAACATT	CTTATAAATT	GATTTAAATT	CTCAAATCAT	ATTATTCACT	9660
TCTTATTTCA	TTTTGTTCTA	CAATCCTGTT	GAGAAGACAC	GTGTTTCATAT	CAAAAAGGTA	9720
TTGGCAAGTT	GCAATACCTT	TTTACGAGGC	TCTGTTGTCT	TATTTTTGTT	TCAACTGACT	9780
ATATCTCCTA	TGGTCTAGT	TCAGAAGGCT	AGGCTATAAT	TATGATTGAT	AAGAAGTATC	9840
ATTCCAAGTA	TTGGGAGTGA	ATGTTTCAAA	ATCATGGGTT	TCTATAATGG	TCAGGCTGGC	9900
ATTTGCTAGA	CCGCCATCTT	TACGAAGAAG	TGGTTCTTTA	TAGCCTAGGA	GAGTACGAAG	9960
ACTGGCAGTA	AGATTGGCGC	CGTGTCGAC	AATTAGAATA	CGTTCAGCTG	GACTATCTTT	10020
TAATGATTTG	ATAAATTGGA	TGGTCCGTTG	AGTTGTACTA	TAGAGGGATT	CGGCTCCGAA	10080
CATTTCGAGT	TCAAATTGAG	CAAGATTGTA	ACGAAAAGCC	TGGATTTGTT	GCGGGTAAAT	10140
AGCTTCCAAG	GTGCAATTT	TCAAACCTTC	TAACCTCCCA	AGTTGCCATT	CACGGAGATT	10200
AGGAACGATT	TCTAAAGAAC	AGGGGGTATA	GAGTTGACTT	TGGATAATCT	CAGCAGATTT	10260
GACCGCTCGA	GGTAAATCAC	TTGAATAAAT	CTGATCAAAA	GGAATTCCTT	TGAGATACTG	10320

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ACCAAGTCGT TTTAGGGTTT CAATGGATTC AGGAAGAAGA GGAGAATCAC CACTAGCACC	10380
TTGAAAACGA CCTTCTTGGT TCCAGAGGGT ACGACCGTGG CGGACAAAGT AGAGTTTCAT	10440
TACTTGATGT CCTCCAAAAT ATCTACAAAG TCTGCCTTTA CAAAGCTAGC CAAGTCTTGT	10500
GGCGCGACGA TAATGCTGTG TCCGACTTCG CCTGCAGAGA CAATCATTG ATCCAAATCT	10560
AGAGCAATTT TATCGATAAA AATGGGATAA TTGTGTTTCT GACGAATTCC GACAGGATTA	10620
TTGGCTCCAT GAATGTAACC AGTTGTTTTT TCTAAGTCCT TTTGTGGAAT CATGCTCACT	10680
TTTTTATTCG CAGAAATTTT AGCTAGTTTC TTTTCAGACA AGTGCTGAGT GATAGGGACA	10740
ATTCGATAA TCGGTCCGGT CTTGTCTCCC AAAAGCGCCA AGGTTTTGAA AATCTGATCT	10800
CGTTCATAAC CTGAGGAAG CTCTCCTTCT AGGGCATTGA TTTGAATCCC CTGATGAGGG	10860
ATAGCTGCTT TAGATAGGAT TTGTTCCACC AATGTTTTTT TGATTTTAAC TTTTTTTGCC	10920
ATTATTTATA TTTATCCTCC AATTGACTCA TCCAAATACC AAGCCAGATT CCCAGCGCAA	10980
AGAAGAAGGC GATGATGACA TAACCGACAA GTGAAAGTCC TGTGTATTGG ATACTTTCAG	11040
CGTTTCCTGC ATTTGGAATT AAGATCAAAA GGGTACTTGA TAGGACGATA CCGATGATGA	11100
AATGATAGAC GAACTGTTTA CGGAGTTCTT CTAGTTCCTC GTCCGTCCAA GCGTAGGCCA	11160
CTTCTTCTTT CTGCTTTTA CCTTTGGACA TCTTGTAAG AGGTGGGAGG GCAATATAGA	11220
CATGACCTGC CTCGACTAGC GGACGCATGT AACGGTAGAA AAATGTCAAG AGCAAGGTCT	11280
GGATATGGGC ACCGTCGGTA TCCGCATCG	11309

(2) INFORMATION FOR SEQ ID NO: 109:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5548 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 109:

CCATAGTCTA ACAAGTCTTT GTAAAGGTTT ATCCCTGATT CATGTAAAGA TTGTGTAAAG	60
AATCAAAAAA AGCCACTTTT GAAAAATGGC TGCTCCTAAA AATAGCTTTA AAAATTATTA	120
GTCTGTGCG AAAGATTGGT TAGGAAGAAA AATCGTGAAG CAACTGCCTC TGCCAAGCTG	180
ACTCGTCACC GTGACTTGGC CACCTAATAA TTGACTGAGT TCTTTGACAA TGGCAAGGCC	240
AAGACCAGTG CCACCAGTTT GTCTGCTTCG ACCTTTATTA ACTCGGTAAA AACGTTCAAA	300
AATACGATCC TGCTCTAATT GACTAATACC AATCCCTGTA TCTGATACAG AAATCTTAAT	360
GCCTTCGTTT ACCTTTTGGG TCTTGACCTC AATTTTCCC CCTTGTTTCA TGTAACGGAT	420



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GGCATTGGAT AAAAGATTGA GTAAGATTTG GGAAAGTAAT TGA CTATCTG ATACGAGGGT	480
GACATCATCT GGCACCTGCA CCTTTAGCTG TAAATCCTTC TTCTTGAGCT GAGGTTGCAA	540
GCTTTGAGTC AAATCCTGTA CAAATCTGTC CAAAGAAAGG GTCGTCCATT GTATAGGCAT	600
TTGTTGAGCC TTAGATAAGG TAAGAAGATG CTCAACAATA TGCTCAAGAC GCAAACCTTC	660
TTTGTAATA ATGTCTAGAA AGTCATCCTT GAGCGCTTCT TCTTCAGCTG ACATCCCTT	720
AATGGTTTCA GCAAAGCCCT TAATCGAAGT AACTGGTGTC CTCAATTCAT GGGAGGCATT	780
TGAGACAAAG GCTAAATTTA ACTTTTCATA AGTTCTAATC GTTGTTAAAT CATATAGCAA	840
GACGAGCACA GCTTCCACAG ATTGGGTGGG GCTAAAAACG GGAAGTGCTG TCACTTCTAA	900
AATCAAGTCA CCCTCATGAA ACCCACTTAC TTCTTGTTTT AACCTTGTTT TTTGATCAAA	960
GGCTTGGTGA ACTAAATTCC GAATATCCAT CCGTTTGAGG TCATCAAGTG AACTTATGTC	1020
GCCGTCCACA TCGGGAAAAT AATGAGGCAG AGAGCGACTG GATAATAACA TCTGACCTTG	1080
AGCGGAAACT AAAAACGTCC CCATGGTTAG GTGCGACAGA AGAACCTCCA TTGTTTCGGC	1140
TAGATCCTTG TATTGCTGAT CCTGTTGGGA GACTTTGGTT TTTAGGCCAG ACACATACTG	1200
AGCCAAAGAC TTTAAGTCTT CTTGCCCTTT TTCTAAAAAG TATTCACTAC TGGTCAAGAG	1260
AGGTTGGTGC AAGGTCTCAA AAGCAACTTC CCATTTCCAA AGGCAAAAGA GCCAGTAGCC	1320
ACCTAGTCCC AAAGAAAGGG CTAGAAGAAA GAGACCGATG CCTTTACTGA TCCAAGTTAA	1380
TGCCATCCCT GCAATCAGAA TGAGGCTAAC ACTTAGATTG ACTAGCCAAA ATTGAAGGTA	1440
GCGTTTCATC TATAACTCCT TGAACCTATA ACCATAACCC CGAATGGTTC GAATAAATTG	1500
AGGGGCTTTA GGATTGTCTT CAATTTTTTC CCTCAACTTA CCAATATGAA CGTCCACCAA	1560
ACGTGTTTCC TGCCCAAAGT CATACCCCA GATACGTTCC AAAAGACGCT CTCTAGTCAG	1620
TGTCATGTTG GGATGTTTCA TAAGATAGAG CAAGAGTTCA AATCTTTTGG GGGTCAAAC	1680
CAGTAACTTA TTCGCCTTGT AGACTTCATG ACGCTCAGGG TATACTTTCA AGGTCCCAA	1740
TAGCCAAGAA TCGTCAGCGA TATTATCTGA ATCATCTCCT TCTTGTTCTC CTTTAGTTCTG	1800
CCTGAGGACA GCCTTGACAC GCGCCAGCAA TTCTCTAGGG CTAAAAGGCT TGTCAGGTA	1860
GTCATCAGCC CCTAATCCA AGGCCAAAAC CTTATCAAAT TCATCACTTT TCGCAGAAAC	1920
CATCATAATT GGAGTTTGA CGCCTTTGGC TCTCAGCCGC TTACAAACTT CCATGCCATC	1980
TAATTGTGGT AACATGATAT CAAGCAAGAT AAAATCAAAG GGTCTGTTT CTGCCAAAGC	2040
TAAGGCCTTC CGTCCATTG TCACCAATTG AGTAGAAAAG CCTTCCTTAC TTAAATGGTA	2100
GTCAAGCAAT TTCAGAATGT GTTCTTCATC ATCCACTAAT AAGACTTGTT TTGTCATCTA	2160

802

TTATCTCCTA TTGGTAACAT TATAACACAA TTATCAGAAA TCCTAACATT GCTAAATCAG	2220
ATTAAATTTG CCTATCAAGA CTAGTATCTG GTCAAACGCT CAATCATCTC CTTGTGCTCT	2280
GGATAGGTCG CCAGTAGATC TACCCTTTCA AATAATTCAA AATCCTCAAA TTCAAAACCA	2340
GGAGCAACAA GACAAGAAAC CAGAGCATCA TCCTTATCAA CTGTTGATCC CCAAATAGTG	2400
CCCTTAGGAA CACAGTAGTG AAGTTGTTGC CCTTTGGATA TGTCCAGGCC TAAAGTGACT	2460
GCTTCGTAGT GACCATCTGC TGTAATCATG TGAACAGTAA GTGGGGATCC TGCATGAAAA	2520
TACCAGATTT CATCTGCTGT CAATCGGTGA AAATGTGAAG GATTCGTTTC TTCTAATAAG	2580
AAATAAATAC TGGTATAAAG CGCCCTTCCC TTACCAGCAA GGTTTATAGT GTCTGAAGCT	2640
TTTTTTGTTT GTCTAAAATA GCCACCTTCA ATATGGGGAG CTAACCTCTAG AGTTCCTATC	2700
AAGTCTTCTT TATCCGTCGG AGCCAATGGG TTGAAGTAAC TCTTGTTCAA AGTGGTTTTA	2760
CGATTTCAAG AACTCCTCTC AGTTCCTGAGG ACACGGTAAT GATTGATGCG ACGGAAGTAC	2820
AAATCAATCG CCCTAAAAAA AGAATTAGCG AATGATCTCG GTAAAAAAA TGCCACGCTA	2880
TGAAGGCTCA AGCGATTGTC ACAAGTCAAG GGAGAATTGT TTCTTTGGAT ATCGCTGTGA	2940
ACTATTGTCA TGATATGAAG TTGTTCAAAA TGAGTCGCAG AAATATCGGA CAAGCTGGTA	3000
AAATCTTGGC TGACAGTGGT TATCAAGGGC TCATGAAGAT ATATCCTCAA GCACAACTC	3060
CACGTAAATC CAGCAAATC AAGCCACTAA CAGTTGAAGA TAAAGCCTAT AACCATGCGC	3120
TATCCAAGGA GAGAAGCAAG GTTGAGAACA TCTTTGCCAA AGTAAAAACG TTAAAAATGA	3180
TTTCAACAAC CTATCGAAAT CATCGTAAAC ACTTCGGATT ACGAATGAAT TTGATTGCTG	3240
GCATTATCAA TCATGAACTA GGATTCTAGT TTTGCAGGAA GTCTATTATT TGGTTAGGTG	3300
AATTAGTGAA GCGTTTAGGC AAGTGTCTCT GGTACGACG TCATGGACTC TAAATCGATT	3360
ATATTTAGGG GTCATGACTA GTGAAGCAGT TAGCTAGTTC GCATATAAGC GGCTAGCGTC	3420
TAACAATTAG GAACTTTAGT TCCAATAACT TTAAGATTAC GACGTTTITAG GACATAAATC	3480
GATCATATTT ATGTCCTAAA ACTAGTGAAG CGCCTAGCCA AAGTCCGAAT AGGATTTGGC	3540
GTTAGTTACT TAGATTGCTT TGCAATCAAG TAACTTTGGC GATTTACATC TTCTCTGGCG	3600
CTTCTACTCC AAGCAAGCGA AGGGCTTCTT TGAGAACGAC TGCGGTTGCG TAGCTGAGGG	3660
CTAGACGGCT GTCGCGTTCT GGGCTTTCAT CCAAGATACG TGTATGTGCA TAGTATTGT	3720
TAAAGGATTG AGCCAGGCTA ATTGCAAATT TAGCAATGAT AGAAGGTTCA AAGTTATCTG	3780
CCGCACGGTT GATAATACGT GGAAGTCTT GAATGAGTTT AATGATTTCC CAGCTTTCAG	3840
TATCATTCOA GCTATAGTTG CCAGCTGTTT CTGGTTTGAA ATCGGCTTTG CGTAAGATAG	3900
ATTGGATACG AGCGTAGGCA TATTGAACGT AAGGTCCAGT TTCACCCTCG AAGGATACCA	3960

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TAGCCTCTAG GTCGAAGTCG TATCCATTTG TACGGTCGGT TTTGAGGTCA TAGAATTTAA 4020  
 TGGCTCCAAT CCCAACAGCA TGTGCTACTT GGTCTTTGTT TTCTAGTTCA GGATTTTGTAG 4080  
 CCTCGATTTG GACCTTGGA CGGCTAACAG CCTCTGCAAC AGTAGGCTCT AGCAAGATGA 4140  
 CATTCCTTTT ACGAGTAGAG AGTTTCTTCC CTTCTTTTGT AACCAAACCA AAAGGAACGT 4200  
 GAGTAATGTC GTCACCTCAG TCGTAGCCCA TCTCTTGCAA GACAGCTTTG AGCTGTTTAA 4260  
 AGTGGGCAGA TTGTTCTTGA CCAACGACAT AGATAGATTT AGCAAATTGG TATTCGTTTT 4320  
 TACGGTAGAG GGCTGCAGCC AAGTCACGTG TGATATAGAG AGTTGCACCA TCAGACTTCT 4380  
 TGATGAGGGC TGGATGTTCA ATTCCATATT TCTCAAGATT CACAACCTGG GCACCTTCTG 4440  
 ATTCAAGAAG TAGTCCTTTT TCAGAAAGAA TGTCTACAAC TGCATCCATC TTATCATTTG 4500  
 AGAAGGCTTC TCCGTTATAG CTGTCAAATT CAACCTTCAA TTCATTGTAA AGGCGGTAA 4560  
 ATTCCACTAA ACTTTCATCG CGGAACCAT GCAAAGAGC GAGAGCTTCC TCATCTCCAT 4620  
 TTTCAAGTTT ACGGAACCAT TCGCGCGCTT CTTTCATCAA GCTAGGGTCA TTTTCAGCTT 4680  
 CAGCGTTGAT GCGGACATAG AGTTTAAGGA GTTCATCGAT TGGATGAGCT TTTACAGCTT 4740  
 CTTCGTCGCC CCATTTTTTG TAGGCAACAA TCAACATCCC AAATTGTTTA CCCCAGTCTC 4800  
 CCAAATGGTT GACCTTGACC GTTTGATAAC CGATTTTTTG GAAAATATGT GACAAGCTAT 4860  
 CTCCGATAAC AGTTGAACGC AGGTGGCCAA TAGAAAATGG TTTAGCGATA TTCGGACTAG 4920  
 ACATGTCGAT AACAAACATTT TCTTGTTTAC CAATATTTTG GTCAGCATAG TGTCTTTTTT 4980  
 CAGTGGAAC AGCTTGCAAT ACTTGAGCAG AAATGGCAGA TTTATCAAGG AAAAAGTTAA 5040  
 CGTAAGGTCC TGTGCGACA ACTTTTTCAA AGGCTTGGCT GTTCATTTTT TCAGCCAGTT 5100  
 CAGCCGCAAT CATTTGTGGT GCTTTACGTT CGACTTTTGC AAGAGAAAAA GCAGGGAAG 5160  
 CAATGTCTCC CATTTCTGAG TTTTATAGGG TTTCCAGTAA CTTTAAAATA GCCTCTTGGT 5220  
 CCAGGCTATC AATGATGCTA GATAATTCGC TAGCAATCAA TTCTTTTGTA TTCATTAAGA 5280  
 GTCCTTTTTT GGACTTTTCT ACTATTTTAT CACAATTTTA AAGAAAGAAG AAAAAATTTT 5340  
 TGAAATCTCC TGTTTTTTTG GTATAATATG GTTATAAATA TAGTTATAAA TATGCACGCA 5400  
 AGAGGATTTT ATGAGAAAAA GAGATCGTCA TCAGTTAATA AAAAAATGA TTAAGGAGGA 5460  
 GAAATTAAGT ACACAAAAAG AAATTCAAGA TCGGTTGGAG GCGCACAAATG TTTGTGTGAC 5520  
 GCAGACAACC TTGTCTCGTG ATTTGCGG 5548

(2) INFORMATION FOR SEQ ID NO: 110:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 3132 base pairs

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(B) TYPE: nucleic acid  
(C) STRANDEDNESS: double  
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 110:

TACCCGGTAG TCTTAGCAGA CACATCTAGC TCTGAAGATG CTTTAAACAT CTCTGATAAA	60
GAAAAAGTAG CAGAAAATAA AGAGAAACAT GAAAATATCC ATAGTGCTAT GGAAACTTCA	120
CAGGATTTTA AAGAGAAGAA AACAGCAGTC ATTAAGGAAA AAGAAGTTGT TAGTAAAAAT	180
CCTGTGATAG ACAATAACAC TAGCAATGAA GAAGCAAAAA TCAAAGAAGA AAATTCCAAT	240
AAATCCCAAG GAGATTATAC GGACTCATTT GTGAATAAAA ACACAGAAAA TCCCAAAAAA	300
GAAGATAAAG TTGTCTATAT TGCTGAATTT AAAGATAAAG AATCTGGAGA AAAAGCAATC	360
AAGGAATAT CCAGTCTTAA GAATACAAAA GTTTTATATA CTTATGATAG AATTTTAAAC	420
GGTAGTGCCA TAGAAACAAC TCCAGATAAC TTGGACAAAA TTAAACAAAT AGAAGGTATT	480
TCATCGGTTG AAAGGGCACA AAAAGTCCAA CCCATGATGA ATCATGCCAG AAAGGAAATT	540
GGAGTTGAGG AAGCTATTGA TTACCTAAAG TCTATCAATG CTCCGTTTGG GAAAAATTTT	600
GATGGTAGAG GTATGGTCAT TTCAAATATC GATACTGGAA CAGATTATAG ACATAAGGCT	660
ATGAGAATCG ATGATGATGC CAAAGCCTCA ATGAGATTTA AAAAAGAAGA CTTAAAAGGC	720
ACTGATAAAA ATTATTGGTT GAGTGATAAA ATCCCTCATG CGTTCAATTA TTATAATGGT	780
GGCAAAATCA CTGTAGAAAA ATATGATGAT GGAAGGGATT ATTTTGACCC ACATGGGATG	840
CATATTGCAG GGATTCTTGC TGGAAATGAT ACTGAACAAG ACATCAAAAA CTTTAACGGC	900
ATAGATGGAA TTGCACCTAA TGCACAAATT TTCTCTTACA AAATGTATTC TGACGCAGGA	960
TCTGGGTTTG CGGGTGATGA AACAATGTTT CATGCTATTG AAGATTCTAT CAAACACAAC	1020
GTTGATGTTG TTTCGGTATC ATCTGGTTTT ACAGGAACAG GTCTTGTAGG TGAGAAATAT	1080
TGGCAAGCTA TTCGGGCATT AAGAAAAGCA GGCATTCCAA TGGTTGTCGC TACGGGTAAC	1140
TATGCGACTT CTGCTTCAAG TTCTTCATGG GATTTAGTAG CAAATAATCA TCTGAAAATG	1200
ACCGACACTG GAAATGTAAC ACGAACTGCA GCACATGAAG ATGCGATAGC GGTGCTTCT	1260
GCTAAAAATC AAACAGTTGA GTTTGATAAA GTTAACATAG GTGGAGAAAG TTTTAAATAC	1320
AGAAATATAG GGGCCTTTTT CGATAAGAGT AAAATCACAA CAAATGAAGA TGGAACAAAA	1380
GCTCCTAGTA AATTAAATTT TGTATATATA GGCAAGGGGC AAGACCAAGA TTTGATAGGT	1440
TTGGATCTTA GGGGCAAAAT TGCAGTAATG GATAGAATTT ATACAAAGGA TTTAAAAAAT	1500
GCTTTTAAAA AAGCTATGGA TAAGGGTGCA CGCGCCATTA TGGTTGTAAA TACTGTAAAT	1560

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TACTACAATA GAGATAATTG GACAGAGCTT CCAGCTATGG GATATGAAGC GGATGAAGGT	1620
ACTAAAAGTC AAGTGTTTTTTC AATTTCAGGA GATGATGGTG TAAAGCTATG GAACATGATT	1680
AATCCTGATA AAAAACTGA AGTCAAAAGA AATAATAAAG AAGATTTTAA AGATAAATTG	1740
GAGCAATACT ATCCAATTGA TATGGAAAGT TTTAATTCCA ACAAACCGAA TGTAGGTGAC	1800
GAAAAAGAGA TTGACTTTAA GTTGCACCT GACACAGACA AAGAACTCTA TAAAGAAGAT	1860
ATCATCGTTC CAGCAGGATC TACATCTTGG GGGCCAAGAA TAGATTTACT TTTAAAACCC	1920
GATGTTTTAG CACCTGGTAA AAATATTAAA TCCACGCTTA ATGTTATTAA TGGCAAATCA	1980
ACTTATGGCT ATATGTCAGG AACTAGTATG GCGACTCCAA TCGTGGCAGC TTCTACTGTT	2040
TTGATTAGAC CGAAATTAAA GGAAATGCTT GAAAGACCTG TATTGAAAAA TCTTAAGGGA	2100
GATGACAAAA TAGATCTTAC AAGTCTTACA AAAATTGCCC TACAAAATAC TGC GCGACCT	2160
ATGATGGATG CAACTTCTTG GAAAGAAAAA AGTCAATACT TTGCATCACC TAGACAACAG	2220
GGAGCAGGCC TAATTAATGT GGCCAATGCT TTGAGAAATG AAGTTGTAGC AACTTTCAAA	2280
AACACTGATT CTAAAGGTTT GGTAAACTCA TATGGTTCCA TTTCTCTTAA AGAAATAAAA	2340
GGTGATAAAA AATACTTTAC AATCAAGCTT CACAATACAT CAAACAGACC TTTGACTTTT	2400
AAAGTTTCAG CATCAGCGAT AACTACAGAT TCTCTAACTG ACAGATTAAA ACTTGATGAA	2460
ACATATAAAG ATGAAAAATC TCCAGATGGT AAGCAAATG TTCCAGAAAT TCACCCAGAA	2520
AAAGTCAAAG GAGCAAATAT CACATTTGAG CATGATACTT TCACTATAGG CGCAAATCT	2580
AGCTTTGATT TGAATGCGGT TATAAATGTT GGAGAGGCCA AAAACAAAAA TAAATTTGTA	2640
GAATCATTTA TTCATTTTGA GTCAGTGGAA GCGATGGAAG CTCTAACTC CAGCGGGAAG	2700
AAAATAAACT TCCAACCTTC TTTGTCGATG CCTCTAATGG GATTTGCTGG GAATTGGAAC	2760
CACGAACCAA TCCTTGATAA ATGGGCTTGG GAAGAAGGGT CAAGATCAAA AACACTGGGA	2820
GGTTATGATG ATGATGGTAA ACCGAAAATT CCAGGAACCT TAAATAAGGG AATTGGTGGA	2880
GAACATGGTA TAGATAAATT TAATCCAGCA GGAGTTATAC AAAATAGAAA AGATAAAAAAT	2940
ACAACATCCC TGGATCAAAA TCCAGAATTA TTTGCTTTCA ATAACGAAGG GATCAACGCT	3000
CCATCATCAA GTGGTTCTAA GATTGCTAAC ATTTATCCTT TAGATTCAAA TGGAAATCCT	3060
CAAGATGCTC AACTTGAAAG AGGATTAAACA CCTTCTCCAC TTGTATTAAAG AAGTGCAGAA	3120
GAAGGATTGA TT	3132

(2) INFORMATION FOR SEQ ID NO: 111:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14672 base pairs

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(B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 111:

CGAGATTTCT TTAAATGAAC TACGTGAAAT CTACCCATCA TCCAGATCTG GATATTCTCT	60
CCTATCTATA AGTAAAGTTT TAGGAGATTT TAATATAAGT TCTCATGCTT TTAAAGCTTC	120
GGTAAGAGAT TTAAACCGC TCAGTTTCCC ACTCATTGCG TTCTGGGAGA GTTCTCATT	180
TATTATTCTT GAAAAATTA GTAAAAACAA GTTTTATATT TTAGATCCTG CAAAAGGCAG	240
GCAGAGAATG TCAATAAGTG AATTGAAAG GCATTATTCA AATATCATT	300
AAAGTTAGAT AGCTTTATGT CTCGTAAAGA TAATAAGAAG TCGCCTGTTT TAAAGTATTT	360
TTTAAAGTAT AGGAATAAGC TAGGGATTTT ATTTTTGTGTA ACAGCATTAT TGTATGTAAT	420
ACAATCATTG GTACCTATAG CTAATAGATA CATAATTGAC ACGAATTTCA AGGACGATTC	480
GTATTCGTCT AGAATGTTAT TTAATATATT ATTTATATTT ACTGTTTCAT TCTCACTAAT	540
GTATTTATTA AGACAGATAT ATGTTGCATC CTTAAATAT ATAATGGATA AAGAGATTAG	600
CTATGATTTT ATGAAACATT TGATATATTT ACCTTACAGT TTTTATGAAA AACGTACTTT	660
AGGGGATATA CTTTTTAGAG CTAATCTAT TGTATATATA AGAGAAATAC TATCAAATAA	720
TTTTATAGCA GCTATACTTG ATTTGTTAAT GATTGTGGTT TATGCTGTGG TTTTATTAG	780
CTTTTCTAAG TACATGGTAA TCTTTTAAAT ATCACTAAGT CTAGCTCTAT CTATTGTAAT	840
GTATCCAATC ATAAAAATCT CAAAAATTT AATTGATAAA AATATAAAG AAAAGGTTAA	900
TGTTCAAAAT ATTACTTCCG AAGTAATTTT TAAAAATAGT GATATTAAGC TAACTGGAGA	960
AGAGGAATTT TGGATTAACA AATGGGATAA TTTAATACA AAACAGCTCA TCATAGGTCG	1020
AAAACCTGAT ATACATTTAT CAATTGTTAG TAGTATAACG AATGTTTTAC AAATTATTCT	1080
CCCTGTTTTG ACCCTTATTG TAGGTGTAAT TATAAAAACA TTCGAACAAT TGACGTTAG	1140
ACAAATTGTA GCAATAAGTA CAGTCTCACC ATACTTTATT TCTCCTATAA TTTCTTTAAG	1200
TGATAACTAT ATACAATTAA TGTATTAAA GGGATATTTT TTAAGAATAG AGGATGTGTT	1260
TAATACTAAA TCCGAATTAA TTCCAGAAAG AGTCAGTCAA GATATAAAAT TTGATAAAAA	1320
AATAGAATTA AAAGATATTT GGTATAAATA TGGATTATTT GATGATTATG TTTTGAAAGG	1380
AATAAATGTT ACTATTAAAA AAGGAGAAAC TGTTGCTATT GTTGGAGAAT CAGGTTTCAGG	1440
TAAGAGTACA TTAGCTAAAA TTTATTAGG TTTATTAGAA CCTAATATTG GTTCAATAGA	1500
AGTTGATGGA GTAGAAAAAG AAGAAATTGG TCAAACATTG TATAGAAAGA TTTTGGAGC	1560

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AGTGTACAA AATTCAACCC TAAGTTATGG TACCTTAAGA GAGAATTGA CATTTGGACA	1620
CTTTGTTTCA GATGAAGAAT TAATGACAAA TCTAAATTCA ATTGGTCTTA GCAATGTAGT	1680
TAAATCTTTA CCTCTTGGAT TAGAGACAAAT CATCGCTGAA GAAGGTAATA ACTTTTCTGG	1740
AGGGCAGCAG CAAATGATAC TTTTAGCTCG TTGTCTTTTG TCGAAACCTT CGGTAGTTGT	1800
TTTGGACGAA GCAACAAGTA GTTTAGATAA TTTATCTCAA CAAATTACAA CTTCTTACTT	1860
AAGTGAAATC GGTACCACTA AGATTTTAAT TGCCCATCGA CTAGATACTA TCAAGTCTGC	1920
AGATAAGATC TTAGTAATGC ATAATGGTGA AATTGTAGAG ATTGGGACCC ATAGAGAACT	1980
TCTTGAAC TAAGGCATTT ATAAGCAATT GTATTCAAAT AATTAGTTT TGATTAAAAG	2040
GGTAAATTTA TGAAGATTAT GAAAAAAAAA TATTGGACTT TAGCGATATT ATTCTTTTGT	2100
TTGTTCAATA ATTCTGTTAC TGCTCAAGAA ATACCTAAAA ATCTTGATGG CAATATAACT	2160
CACACTCAGA CTAGCGAAAG TTTTCTGAA TCTGATGAAA AACAGGTTGA CTATTCTAAT	2220
AAAAATCAAG AAGAAGTAGA CCAAAATAAA TTTCGTATTC AAATCGATAA GACAGAATTA	2280
TTTGTAACAA CAGATAAACA TTTAGAAAAA AACTGTTGTA AATTGGAAC TGAACCACAA	2340
ATAAATAACG ATATTGTAA CTCTGAAAGT AATAATTAC TAGGCGAAGA TAATTTAGAT	2400
AATAAAATTA AGGAAAATGT TTCTCATCTA GATAATAGAG GAGGAAATAT AGAGCATGAC	2460
AAAGATAACT TAGAATCGTC GATTGTAAGA AAATATGAAT GGGATATAGA TAAAGTTACT	2520
GGTGGAGGCG AAAGTTATAA ATTATATTCT AAAAGTAATT CTAAAGTTTC AATTGCTATT	2580
TTAGATTCAG GAGTCGATTT ACAAATACT GGATTACTGA AAAATCTTTC AAATCACTCA	2640
AAAACTATG TCCCAATAA AGGATATTTA GGAAAAGAGG AGGGAGAGGA AGGAATAATA	2700
TCAGATATTC AAGATAGATT AGGTCATGGT ACGGCTGTTG TAGCTCAAAT TGAGGGGAT	2760
GACAATATTA ATGGAGTAAA TCCTCACGTT AATATTAACG TCTATAGAAT ATTTGGTAAG	2820
TCGTCAGCTA GTCCAGATTG GATTGTAAAA GCAATTTTGT ATGCTGTAGA TGATGGCAAT	2880
GATATTATCA ATCTTAGTAC TGGACAATAT TTAATGATTG ATGGAGAATA TGAGGACGGA	2940
ACAAATGATT TTGAAACATT TTTGAAGTAT AAAAAGGCTA TTGATTACGC GAATCAAAAA	3000
GGAGTAATTA TAGTAGCTGC ATTAGGGAAT GACTCCCTAA ATGTATCAAA TCAGTCAGAT	3060
TTATTGAAAC TTATTAGTTC ACGCAAAAAA GTAAGAAAAA CAGGATTAGT AGTTGATGTT	3120
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GATTTTAGCA ATAAAGGGGA TTCTGATGCA ATATATGCGC CTGCAGGCTC AACATTATCT	3240
CTTTCAGAAT TAGGACTTAA TAACTTTATT AATGCAGAAA AATATAAAGA AGATTGGATT	3300

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TTTTCGGCAA	CACTAGGAGG	ATATACGTAT	CTTTATGGAA	ACTCATTTC	TGCTCCTAAA	3360
GTTTCTGGTG	CGATTGCAAT	GATTATTGAT	AAATACAAAT	TAAAAGATCA	GCCCTATAAT	3420
TATATGTTTG	TAAAAAAATT	CTGGAAGAAA	CATTACCAGT	AAAAAATGGT	ATAAAAGTGT	3480
TAAATATACC	AAACGTATTG	AGATATGATT	TGAATATGTT	ACAATTAGAA	TATAAAAATG	3540
AACAAAGTTG	GGATAGTTTC	ATAGATAATG	TTAATTTAAT	TGAGTTGGAA	GAGAGAATTC	3600
AAACTACTAT	TGGAATTAAA	CAAATAAACA	CACACAATAT	TATTACTATT	GCCCCGAGAAG	3660
GGTACTCTCA	AAATTATTTA	CCTAACACTT	CAGAAAATAC	ATATAATTCA	TTACAAGTCA	3720
GTTTAGTTGG	AGTATTACTA	CTTTTTATAA	GTATGGTAAA	TATTTTATGG	GCTAAAAAAA	3780
GTAAATGAAA	ATAAAATTTG	GAGCCCTCTG	AAAAAGTAAG	TCCTACAGTT	CAACTAAAAAT	3840
GAGTCAAAAG	ATGAATCACC	TTGATGTAGG	GGAGTTTGTC	TTATTGCTGC	CTGAACACCT	3900
CCGTTTCAGAG	GAAGAACATT	ATAAATCTGT	TTTTGAAGAC	GACTTAACCA	GTGCGCATATC	3960
TAGTCAAGAT	GAACGACAGC	AAATGACTGC	TACGGTAGGT	TATTTAGAAT	CAGGTCAGGA	4020
TCGTTTTGTG	TATAATACGA	CCCCTATTTC	TTACCAGCAG	TTTTTGAAAG	ATCCAATCAT	4080
CATTGTTATA	ACACCCCAAT	CAACTGGTCC	ACAGTCCATT	TTGTTTTGGA	TAGACGCAGT	4140
ACAGAACTAC	GTTCTCTTTA	ATCAATTGTC	TGATGCCCAG	GAGCTTATCC	AGAGACAAGG	4200
CATTGAAAAT	TGGGTCTCAG	AAATGCAAAC	AGGTTACCAC	AACTACATCA	CATTATTGGA	4260
TAATATCCAG	AGGGAACGTT	GGGTAATGCT	AGCAGGAGCT	GTGCTTGGGA	TTGCAACTTC	4320
AATCTTGTG	TTTAACACTA	TGAATAGGCT	CTACTTTGAA	GAATTTAGAC	GTGCCATTTT	4380
TATCAAACGC	ATTGCAGGTC	TCAGGTCTTT	AGAAATCCAT	CGCACTTATC	TCTTTGCTCA	4440
ACTGGGTGTG	TTTTTACTGG	GATTTGTTGC	GAGTGTATTT	CTTCAGGTAG	AGATAGGAGT	4500
TGCTTTCTTA	GTCTTGTTAC	TCTTTACTGG	TCTATCTCTT	TTACAGTTAC	ATGTCCAAAT	4560
GCAGAAAGAA	AACAAGATGT	CCATGCTTGT	TTTGAAGGGA	GGTTAATATG	ATTGAACTTA	4620
AACAGGTGAG	TAAATCTTTT	GGAGAACGAG	AGTTATTTTC	GAATCTTTCA	ATGACATTTG	4680
AGGCTGGAAA	AGTCTATGCC	TTAATTGGTT	CAAGTGGTAG	CGGAAAAACA	ACCTTGATGA	4740
ACATGATTGG	GAAATTAGAA	CCTTATGATG	GGACGATTTT	TTACCGAGGT	AAAGACTTGG	4800
CCAATTATAA	ATCAAGTGAT	TTTTTCCGTC	ACGAATTGGG	CTACCTCTTC	CAGAACTTTG	4860
GCTTAATTGA	AAACCAAAGT	ATTGAAGAAA	ACCTTAAGCT	AGGTCTCATT	GGTCAAAAGT	4920
TGAGTCGGTC	GGAACAGCGG	TTGAGGCAGA	AGCAGGCTTT	AGAACAGGTC	GGCCTGGTTT	4980
ATCTTGACCT	AGATAAGCGC	ATCTTTGAGT	TATCGGCGG	AGAATCGCAA	CGGGTTGCCT	5040
TGGCAAAAAT	TATCTTAAAG	AATCCACCCT	TTATTCTGGC	AGATGAGCCA	ACAGCTTCAA	5100



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TAGACCCAGC AACCTCTCAG TTGATTATGG AGATTTTGCT ATCTCTTCGA GATGATAATA	5160
GGCTAATCAT TATCGCAACA CATAATCCGG CAATTTGGGA GATGGCTGAT GAAGTGTTC	5220
CGATGGATCA TCTGAAATAA AAATCCTTGT TTTTAATTGC ACGATGAGTT ACTGAAATAT	5280
TATCATGAAT CAAGAATTGG AGTTAATTTA GAATTGTACT TAATTTAGAA TTGTACTTTA	5340
TTAATATTGA GGTAACTTT TCTTGATAAA GGAAGAAATA ATGGAGAGGA AGTTAGAATG	5400
AAAAAATTCG ACAATTATAT TATTGAGAAG CCTTGCGATT CTAATTCAGA TAAACTGCAA	5460
AAAATCTTAA TAATTGAAAG TTTGGTAGAT GATATTTTGC AATTTTCTCT CAGAATCAAT	5520
AATAGTGTAG GAGAGATTTT CCTCCTACAA CCGTTTTAAA AGAAAACAT CTTTATTCCA	5580
TGTTATTTTG AGGAAGATAT TGTGAAAGTC AAAGATGATG ATAAAGTTGA GTGGAATTTG	5640
TTAGAATTTT AAAAATTTAG AGCATTTTTG GCTTAGTAAT CTGTGTTGAA GGCTCAAAAC	5700
CTATGGTAAA AAAGTAGCTT TGAAAACGTA TTGCCTCCAA AGATTTAGTT AAATAATGAT	5760
TTAACACAAA AAGAAATTAT TGAAGTCTG GAAAGATGTT GTTTCAGTAT TGAGAAAAGG	5820
TGGGAAAAAC TTGCGATTTT CACAGAGAAA GGAAGAAAAA GTATAGAAAT ATAGTCAATT	5880
GAAACAAGAA CAGGATAAAA GAACCTTTTG TGCCATATTT TTCTCCTTTC GCTTTACAAT	5940
TGGATTGAAC ACCTTTATTG TATCGCGTTT GGAGTTTTTT TGGTATAACC TTCGACGCAC	6000
ACCCGCATAG CGGGTGTTTT TTTTGTCTCG CACCTAACGG AGCGAGACAA ACTAATAGTC	6060
ACTTAATCAA AAAACGCACC ATATCAAAAA CTAAAAAGTT TGATATCATG CGTCATGTCT	6120
TAACTAATT GACTATACTT TCTATTCAA TGAGCTTTTA ACCAATTGAT TGAGCCAATC	6180
CACTCTTAAA ACCAAAGAGC AATTTCTCGC TTAGCTGACT CTTCTGAATC TGAACCATGT	6240
ACAACATTTT GGATAATCTC ATTTTCTCCA GCAGCTTTTG CAAAATCACC TCGAATAGTG	6300
CCTGGTAAAG CTTCTTCTGG ACGAGTTGCA CCCATCATGG TCCGCCAAGT TTCGATTACT	6360
TTGGGACCAG AAATGACACC CACAAGAACT GGACCTGAAG TCATGAATTC ACGAATCGGT	6420
GGGTAAAAAC TCTGACCAAC CAAGTCCTGA TAGTGCTGGT CAATCAACTC TTCTGAAACC	6480
TGTGAACGAA ACTCCAATTT TTCGATTGTA AATCCACGTT GTTCGATGCG CTTTAACACT	6540
TCACCCACTA GCCCTCTTTT TACACCATCT GGTTTGATGA TAAAGAATGT TTGTTCCATA	6600
CCCGTCTCCT TTGTCAGCTT CTTTCTTTTA TTTTACCACA TTTCGTGGAA AAATGGAGAA	6660
AGTTTTCAGA AGAGAGAATG AGAGAACCCT CGGGTTCTCT CATTCCTCTCT TATTCTACTG	6720
TTTCTTCCAC AGTTTCAACG GCAGTATCCA CAACTACTTC TGTTGTTTCT TCATTTCTTT	6780
CTTCCTCTAC TGGAGGATTA AGGTATTCTT CTTCGTTGAC AGCATGTGGT TCAAGGTTAC	6840

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GGTAACGGGC	CATACCAGTA	CCAGCTGGGA	TGATCTTACC	GATGATAACA	TTTTCTTTAA	6900
GTCCAAGGAG	ATGGTCTTTC	TTACCACGGA	TAGCTGCGTC	AGTAAGGACA	CGAGTTGTTT	6960
CCTGGAAGGA	AGCCGCTGAC	AAGAACTGT	TTGTTTCAAG	TGAGGCTTTG	GTAATTTCCA	7020
TAAGGACTGG	GCGACCTGTC	GCTGGAATC	CACCTGCGAT	AAGGACATCT	TTGTTGGCAT	7080
CTGTAAAGTC	ATTGATATCC	ATGAGGGTAC	CCATGAGAAG	ATCTGTATCA	CCTGGATCCA	7140
TGACACGGAC	TTTACGGATC	ATTTGACGAA	CCATTACCTC	GATGTGTTTG	TCACCGATTT	7200
CTACCCCTTG	GCTACGGTAA	ACTTTTGTGA	CTTCACCGAG	AAGGTACGTT	TCAACTGACA	7260
AGACATCACG	AACTGCAAGG	AGACGTTTTG	GTTGGATAGA	ACCTTCTGTC	AGAGCAGCAC	7320
CACGCGCTAC	TTGGCCCCCA	ACTTCGACAC	GCATACGAGC	TGTAAATGGA	ACGACATATT	7380
CACCTTCGCC	AGTTTCACCC	TTAACAAAGA	CTTCTTGGT	ACGAGTTGAT	GCATCTTCTT	7440
CGATAGCAGT	AACTTGTCCCT	TTAACCTCTG	TAATAACCGC	TTCCCCTTTA	GGATTGCGGG	7500
CTTCAAAGAT	TTCTTGGACA	CGAGGAAGAC	CCTGAGTGAT	ATCGGTATTT	GAGGCAACCC	7560
CACCTGTGTG	GAAGGTACGC	ATTGTAAGCT	GTGTACCAGG	TTCCCCGATA	GATTGGGCAG	7620
CGATTGTACC	AACTGCTTCA	CCAACCTCAA	CCGCATCACC	AGTCGCCAAG	TTGATACCGT	7680
AACAGTGACG	GCAGACACCG	TGACGAGTGT	TACATGTAAA	TACAGAACGG	ATAGTCACTT	7740
CTTCCACACC	AGCATTGACA	ATTTACGCG	CCTTGCTCTC	TGTAATCAAT	TCATTTGGAC	7800
CAATAATCAC	TGCACCAGTT	TCTGGATGTT	TAACAGTTTT	CTTAGTGTA	CGACCGTTGA	7860
GACGCTCTTC	GAGAGACTCG	ATCATCTCTT	TTCTTCTGTC	GATAGAACGG	ATCAAGAGAC	7920
CACGGTCAGT	TCCACAGTCG	TCCTCACGGA	TGATAACGTC	TTGGGCAACG	TCGACCAAAC	7980
GACGAGTCAA	GTAACCTGAG	TCGGCTGTCT	TAAGGGCCGT	ATCGGTCATA	CCTTTACGAG	8040
CACCGTGAGT	TGAGAAGAAC	ATTTCCAATA	CCGACAAACC	TTCGCGGAAG	TTTGAAAGGA	8100
TTGGCAATTC	CATGATACGT	CCATTTCGAG	CAGCCATCAG	ACCACGCATA	CCGGCAAGCT	8160
GTGAGAAGTT	TGAGATGTTA	CCACGGGCTC	CAGAGTCCAT	CATCATAACG	ATTGGGTTCCT	8220
TAGGATCTTG	GTTAGCAATC	AAGCGTTTCT	CAAGTTTTTC	ACGGGCAGCA	CGCCATTCAG	8280
CTGTAACAGC	ATTGTAACGC	TCGTCGTCTG	TGATCATACC	ACGACGGAAT	TGTTTGGTGA	8340
TTTGTTTCGAC	ACGTTTGTGT	GATTCTTCAA	TGATTTCAGC	CTTGTCATCA	ACGACTGGGA	8400
TATCGGCAAT	ACCCACTGTC	AATCCTGCAA	GAGTTGAGTG	GTGGTAACCG	AGGTTCTTCA	8460
TGCGGTCAAG	TAGGGCAGAA	GTTTCTGTCTG	TACGGAAACG	TTTGAAGATT	TCAGCGATGA	8520
TATTTCCAAG	GTTTTTCTTC	TTGAATGGAG	GGTTGAGCTC	AAGATTGCTG	ATAGCTTCCT	8580
TGATATCTCC	ACCAAGTGGC	AAGAAGTATT	TAGCTGGAAC	ACCTTCTGTC	AAGTTGGCAT	8640

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TGTTTGTTTC	TTGCAAGTAT	GGTAGCCCT	CTGGCATGAT	ATCGTTGAAG	AGAATTTTAC	8700
CAACTGTTGT	AAGCAAGACC	TTATGTCTTT	GCTCTTCTGT	CCAAGGCTTG	TTGAGGCTGT	8760
CTGTGCGAT	ACCAACACGT	GAGTGGAGGT	GAACATAACC	ATTGCGGTAA	GCCATAACCG	8820
CTTCGTCACG	GTCTTTGAAG	ACCATTCCCTT	CACCTTCGCG	ACCAGCTTCT	TCCATGGTCA	8880
AGTAGTAGTT	ACCCAAAACC	ATGTCCTGAG	ATGGAGTAAC	TACCGGTTTC	CCATCTTTCG	8940
GGTTCAAGAT	GTGCTCAGCA	GCTAGCATGA	GGATACGAGC	TTCTGCTTGT	GCTTCTTCTG	9000
AAAGTGGTAC	GTGGATGGCC	ATTTGGTCCC	CGTCAAAGTC	AGCATGTAG	GCTTCACAGA	9060
CAAGTGGGTG	CAAGCGAAGA	GCCTTACCAT	CAATCAAGAC	TGGCTCGAAG	GCTTGGATAC	9120
CCAAACGGTG	AAGGGTCGGT	GCGCGGTTCA	AAAGCACTGG	GTGTCTTTTA	ATCACTTCTT	9180
CAAGGATATC	CCAGATACGC	TCATCTCCGC	GTTCCACCAA	GCGTTTAGCT	GCTTTGACGT	9240
TTTGCACGAT	ATCACGGGCA	ACGATTTCAC	GCATGACAAA	TGGTTTAAAG	AGTTCAATCG	9300
CCATTTACAG	CGGCACACCA	CATTGGTACA	TCTTAAGAGT	TGGACCAACG	GCGATAACTG	9360
AACGTCCTGA	GAAGTCAACA	CGTTTACCGA	GCAAGTTTGT	ACGGAAGCGT	CCTTGTTTAC	9420
CTTTAAGCAT	GTGGCTCAAT	GATTTCATG	GACGGCTACC	TGGTCCTGTG	ATTGGACGAC	9480
CACGACGACC	ATTGTCAATC	AAAGCGTCAA	CTGCTTCTTG	AAGCATACGC	TTCTCATTTT	9540
GAACGATGAT	ACCTGGTGCA	TTTAACTCAA	GCAAACGAGC	CAAACGGTTG	TTACGGTTGA	9600
TAACACGGCG	GTAAAGGTCA	TTCAAGTCAG	ATGAGGCAAA	ACGGCCACCA	TCCAAGTCA	9660
ACATTGGACG	AAGATCTGGT	GGGATAACCG	GAAGGATGTT	AAGAATCATC	CATTCAGGTT	9720
TGTTTCCAGA	CTTGTAATAAG	GCATCCAAAA	CATCCAAACG	ACGGATGGCT	TTGACACGCT	9780
TTTGTCCAGT	AGCTGTTTTT	AATTCTTCTT	TGAGTTCAGC	AATTCTTTT	TCAAGATCTA	9840
CTTGCTTCAA	AAGGTCTTGG	ATGGCTTCCG	CACCCATCTT	GGCAACAAAT	GAACCATAAC	9900
CATATTCACG	CAAGCGCTCT	CGGTATTTCG	GCTCTGTCAT	GATAGACTTG	TGCTCAAGTG	9960
GTGTATCCTT	AGGATCAATC	ACCACATAAG	CCGCAAAGTA	GATAACTTCC	TCGAGGGCAC	10020
GAGGGCTCAT	ATCAAGGGTC	AAGCCCATAC	GGCTTGGAAT	CCCCTTGAAG	TACCAGATGT	10080
GAGATACAGG	AGCTTTCAAT	TCGATATGTC	CCATACGCTC	ACGACGAACT	TTCGTACGCG	10140
TTACTTCAAC	CCCACAGCGG	TCACAAACAA	TTCTCTGTGA	ACGAATGCGT	TTGTACTTAC	10200
CACAAGCACA	TTCCAGTCT	TTTGTAGGAC	CAAAGATCAC	TTCATCAAAG	AGTCCTTCAC	10260
GTCTGTTT	CAAGGTACGA	TAATTGATTG	TTTCAGGTTT	TTTGACTTCT	CCATAAGACC	10320
ATGAACGGAC	TTTACTTGGA	GAAGCTAGGG	TGATTGTCAT	ACTTTTAAAA	CGATTTACAT	10380

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CAACCACTAT TTCTTCCCTT TCTATTCTAA GTGAACCTGCT TATTCTTGTT CAGCAGCTTC	10440
TTCTGTGCT TCCGCTTTTG TTGCTTTCTC AGCTTCTTCA GCTTCAAAGG CTGCTTTAGC	10500
CTCTTGGGCT GCTTTTTCGC GGGCTTTTTC AAGGTCATCT ACGTGGATGA CATCTTCGTC	10560
CATTCCCTCA TCCAAGTCGC GAAGTTCCAC TTCTTGGTCA TCTTCGTCTA GGACACGCAT	10620
GTCAAGACCA AGAGATTGCA ATTCTTTGAC AAGAACTCGG AAGGATTCTG GAACACCTGG	10680
TTTGTGAATT GGTTTGCCTT TTGTAATAGC TTCATAGGCT TTCAAACGTC CGTTGATATC	10740
GTCCGACTTG TAAGTCAAGA TTTCTTGAAG GACATTTGAC GCACCGTAGG CTTCAGAGC	10800
CCAAACCTCC ATCTCACCAG AACGTTGTCC ACCAAACTGA GCCTTACCTC CGAGTGGTTG	10860
TTGGGTAACA GTTGAGTATG GTCCGACTGA ACGCGCGTGC AATTTATCAT CAACCATGTG	10920
GTGGAGTTTG ATCATGTACA TGACTCCGAC AGAAACACGG TTATCAAACG GTTCACCACT	10980
ACGTCCATCG TAAAGGATCG TTTTGGCATC GCTATCCATA CCTGCTTCTT TAACAGTTGA	11040
CCAAAGATCT TCAGAACTTG CTCATCAAAA GACTGGTGTA GCGATGTGAA TACCAAGAGT	11100
ACGAGCTGCC ATACCAAGGT GAAGCTCCAT AACCTGACCG ATATTCATAC GTGATGGTAC	11160
CCCAAGTGGG TTCAACATGA TGTCGACTGG AGTTCCGTCT GGAAGGTAAG GCATGTCTTC	11220
TACAGGAACG ATACGAGAGA CAACCCCTTT GTTTCCTGTA CGTCCGGCCA TTTTATCTCC	11280
GACCTTAATC TTACGTTTTT GAGCGATGTA AACACGAACC AACATGTTAA CACCTGATTG	11340
CAACTCATCT CCATTTACAC GTGTAAAGAT CTTAACATCA CGAACGACAC CATCGGCACC	11400
GTGTGGTACA CGAAGAGAAG TATCACGCAC TTCACGAGAC TTGTCTCAA AGATAGCGTG	11460
CAAGAGACGT TCTTCAGCTG AAAGATCTTT CTCACCCCTA GGTGTTACTT TACCTACAAG	11520
AATATCACCT TCTTTAACCT CAGCACCAAT ACGGATAATC CCCATTTCTG CAAGGTCTTT	11580
GAGGGCATCT TCACCAACGT TTGGAATTTT GCGAGTGATT TCTTCAGGCC CAAGCTTTGT	11640
ATCGCGCGTT TCTGATTCGT ATTCTTCAAG GTGAACAGAT GTGTAGACAT CGTCCTTCAC	11700
CAAGCGTTCT CTCATGATAA CGGCATCCTC GAAGTTGTAA CCTTCCCAAG TCATGTAGGC	11760
AACGATTGGG TTTTGTCCAA GCGCCATTTT TCCATTTTCC ATAGAAGGTC CGTCAGCGAT	11820
GAAATCGCCT TTTTCAACGA CATCACCAAC TTTTACGAGA GTGCGTTGGT TGTAAGCAGT	11880
ACCTGAGTTT GAACGACGGA ATTTTGGAT GTGGTAAACA TCCAATGAAC CATCTTCACG	11940
ACGAACTTCT ACCTTGTCAG CATCTGCGTA AGTAACTTTA CCATCATACT GAGCAATCAC	12000
AGCCGCACCA GAATCGTGGG CTGCTTGGTA TTCCATACCA GTACCAACGT AAGGTGCCTG	12060
AGGATTAATC AATGGCACAG CCTGACGTTG CATATTGGCT CCCATGAGGG CACGGTTGGA	12120
GTCATCGTTT TCCAAGAAAG GAATACATGC TGTCGCAACG GCAACTACCT GTTTTGGTGA	12180

AACGTCCATG TAGTCAACAA TATTAGCTGG ATACTCTTGG TTGACCCCTT GGTGACGTCC	12240
CATGACAATC TTCTCAGCAA AGGTTCATC TTCATTGAGA CGAGAGTTAG CCTGAGCTAC	12300
AGTATATTCA TCTTCTTCAT CAGCTGTCAA CCAAACAATT TCGTTCGTGA CAACACCTGT	12360
TTACACGGTCA ACCTTACGGT ATGGTGTTTG AACAAAACCA TATTTGTTCA AGTGTCCTA	12420
AGATGACAAG TTATTGATCA AACCGATGTT AGGTCCTTCA GGTGTCTCGA TTGGACACAT	12480
ACGACCATAG TGAGTGTAGT GCACGTCACG TACTTCATAT CCAGCACGGT CACGAGTCAA	12540
ACCACCAGGT CCTAAGGCTG ACAAACGGCG TTTGTGAGAC AACTCAGAAA GCGGGTTGTG	12600
TTGGTCCATG AACTGTGACA ACTGTGATGA ACCAAAGAAT TCTTTAACTG CAGCTGTTAC	12660
AGGACGGATA TTGATAATTT GTTGTGGTGT CAAGACTTCA TTGTCCTGAA CAGACATACG	12720
TTACACGGACA TTACGTTCCTA TACGAGAAAG TCCCAAACGT ACTTGGTTGG CAAGCAATTC	12780
ACCAACCGCA CGGATACGAC GATTTCCTAAG GTGGTCGATA TCACTACAC GGCCAAGTCC	12840
TTGAGCCAAG TTGAGGAAGT AGCTCATCTC AGCAAGGATA TCTGCAGGAG TCACCGTACG	12900
AACCTTGTC TCTGGGTTAG CATTACCAAT GATCGTTACG ACGCGATCTG GATCAGTTGG	12960
AGCAATAACC TTGAATTTTT GAAGAACAAC AGGCTCAGTC ACAACGGCTG CATCGTTTGG	13020
GATGTAGACA ATCTTGTTCA AGTCGCCATC CAAATGGCTT TCAATGCTTT CAATCACGCT	13080
ACGAGTCATA ATCGTACCAG CTTCTACCAA GATTTCCTCA GTTTCAGGGT CTACCAATGG	13140
CTCTGCAATG GTTTGGTTGA GCAAACGTGT TTTAACATTG AGTTTTTTAT TGATTTTGTA	13200
ACGACCAACT GCTGCCAAGT CATAACGACG TGGGTCAAAG AAGCGAGCTA CAAGCAAGCT	13260
ACGTGAGCTT TCAGCCGTCT TAGGCTCACC TGGACGAAGG CGTTCGTAAA TTTCTTTCAA	13320
GGCTTCGTCT GTACGAGAGT CCATTGGATT CTTGTGGATA TCTTTTCAA CAGTGTTGCG	13380
AACCAATTCG CTGTCACCAA AGATATCAAA GATTTCATCA TCACCTGAGA AACCAAGAGC	13440
ACGAACCAAG GTTGTAATG GAATCTTACG AGTACGGTCG ATACGAGTGT AGGTGATATC	13500
TTTGTAGTCG CTTTCAAGTT CCAACCAAGC TCCACGGTTA GGGATAACAG TTGAACCATA	13560
GCCACCTTA CCATTTTGT CTAATTTGTC GTTAAAGTAA ACACCTGGTG AGCGGACCAA	13620
CTGAGAAACG ATAATACGTT CACCACCATG GATGATGAAA GTACCCATTT CTGTCATGAT	13680
TGGGAAATCA CCAAAGAAAA CTTCTGGGT CTTGATTTTCG CTTGTTTCTT TATTGATCAA	13740
ACGGAAGGTT AAAAAATTG GTGCTGAGTA GCTAGCATCG TGGATACGAG CTTCTTCTAG	13800
CGTATATTTT GGTTCCTTGA TTTCATATCC AACAAATTC AACTCCATTG TGTCTGTGAA	13860
GTTTGAAATT GGCAATACAT CTTCAAACAC TTCCTTAAGA CCGTGGTCTA GGAAAGCTTT	13920

814

GAATGAGTCA	GTTTGAATTT	CAATCAAATT	TGGTAAGTCA	AGAACTTCTT	TGATTCTTGA	13980
AAAACCTACGA	CGGGTACGAT	GTTTCCCGTA	TTGAACGTCA	TGTCCTGCCA	AGATGATTCT	14040
CCTTTGTAAA	TAAGTTCCAA	GCCTTGTCAA	TCAGGCTTTT	CTAATCGTCA	TATGGTTGTA	14100
AACCCCTTAT	CACCGTGTCC	TCTTGACGAA	TTTTCAGAAT	CTTTAAGCCT	CTGTTACAAA	14160
TGCTCAAAAT	CTTGAAAAA	AGCACAAAA	GAGCAGCTAA	ATCTGACTTT	TTCAGAAGAT	14220
TTAACTGCTG	TGAGCCTTGT	CTGGACAATA	TTTCAGACAA	AACCTACGAC	AAATGATTAC	14280
CCATATTATA	CCCTATTTAG	CTAGATTTTT	CAAGGGGTTT	CAGTAGGTTT	TTGGTAAATT	14340
TTTTCCCAT	GAAAACCTGG	CATCACATTC	GAATCACGCT	ATGGTACAAA	AAACTGAAAA	14400
AACTATTGAC	TGAAATCAT	TTTCAAGGTA	TAATAATAAA	CGTTAAGGCG	GTATAGCCAA	14460
GTGGTAAGGC	ACGGCTCTGC	AAAAGCTTGA	TCGTCGGTTC	AAATCCGTCT	ACCGCCTTCT	14520
ATAACTTGAT	TTATCAGGTT	TCAAATGAAC	AGAAAGCCCA	ATTTGAAGGG	CTTTTTTTAT	14580
TTTCCCTCGA	ATAAATACGT	ATAACTTTAA	AAACTTTTGG	AGCGAGTTTG	TGGCAGAGTT	14640
CTTTCCATGG	CATAATCCC	TTTTGAAATC	AG			14672

(2) INFORMATION FOR SEQ ID NO: 112:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7902 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 112:

AGGAGACTAT	TCAAGCCCAA	ATTgAGTAGC	CCAGCAAAGA	CTGTATAGAC	TGTGATACGT	60
TTTTTCATAGC	CATTGGTAAA	GAGAATTTGG	GAACCAAGAA	TGGTATCTAA	GGCCAGGATA	120
ATCGTACGAA	AAGCGAAGAG	AGAGGTCAAG	ATGCCGCCTC	CGATATATTT	TTCACFACCG	180
TAAAGTAGGA	TGGCATTTGG	TCCTAAAACC	ATGAGTCCAA	AACTCAGTGG	AATGATAAAG	240
AAGTTAAAGA	TTCGACTACC	TCTATTAACC	AGAGAAACAT	AGGCTTCTTT	GTCTCCTTTC	300
CCCAGATAGT	AACTGAGACG	AGGCACACTC	ACTCCAATTG	CACCTGTTAC	AACCCAGCT	360
ATAACGGTCA	CAATTCGCTG	AGCTATGGTA	TAGTAACTAA	CGTTGACATC	AATCCCTGTT	420
TTAACGAGGA	AGAGGCGATC	TAAAAAAGTG	AAGAGCATAT	TGGCATTGGC	AAAGACTAAC	480
ATGGCTGTCA	GAGGGAGAAA	GAGTGGTTTA	AAATCACTTA	GGTGAATTTT	AACAAGTTTG	540
ATGTCTCTTT	TAATCCAAAA	ATAACTAATC	AGGTAGTTAA	TCAGCGTCGA	TAAACTCATC	600
ACAAGTGTAT	AGACAACAAT	ATCGTGTTCA	TTTTTAACAA	ATAAGAAAAT	AGAGACCAGC	660

815

ATCAGGATAC	GGATGAAGGC	AGTTTTGTAA	AAGAGAAAAC	TGTAATTTTC	CAGAGCTTCA	720
TTGACCCATT	CGATTGAAAA	AATCTGGGCA	ATGAGTTGAA	TCCCCATAAC	AAGGTAGACC	780
TTTTTGACGA	TTGGATTATC	AGTAAAGAAG	AGAGGATAGG	CTAGGATATA	GACAGCAGTG	840
GTCAAAATCG	TACAAGCGAT	GCACAAATAA	AAAAGACTAG	AAAAGGTTCT	GTTAAGATCT	900
TTTTTGTTAT	CCTTGACATT	ACTGATAGCC	CTTAAACCGT	AGTTATAGAC	ACCATAAGTT	960
GCAAAGGGCA	AGAAAAATGA	CAAAATAGTG	TCGACTGAGT	TGAAGTAACC	ATAGTCAGTT	1020
CGGTCCAAGA	CACGCGCGAC	ATAGGTTCCA	GTTAGGATGG	GAAAAATAAT	ATTCAAGACA	1080
CGAATTCCCA	TGTAAGATAG	AGCATTTAAT	TTTATACTTT	TCATTCAATT	TACCTCGTTT	1140
TTCATTATAT	CATAAAGTTA	GCTAATAAGA	AATGAAGGGC	AGTAAGTCAA	GTAATCACTT	1200
TGAAGTTTCA	AATCTTAAGT	TTTAAGTTTT	CTTTAAGGAA	AGTATATTAT	TCTGAAGGAC	1260
TCTAAAATTT	CGCAGCCATT	TATTAGTAAT	TGCTACAGAA	TTCCTAGTCA	TTACTAGAAA	1320
TGGACTAGTT	TCTTTGAATA	ATAGAACTGC	ATAATTCTCC	TATTCTAGAA	GGGGAGGACC	1380
AGTATTTCTT	TTATGATAGG	ACTAGATTGT	GGTATAATAG	AGAGAATAAG	TTTTTTTAGT	1440
AAGACAAAGG	AGAAAATAGA	TGATTTATGC	AGGAATTCTT	GCCGGTGGAA	CTGGCACACG	1500
CATGGGGATC	AGTAACTTGC	CAAAACAATT	TTTAGAGCTA	GGTGATCGAC	CTATTTTGAT	1560
TCATACAATT	GAAAAATTTG	TCTTGGAGCC	AAGTATTGAA	AAAATTGTAG	TTGGTGTTCA	1620
TGGAGACTGG	GTTTCTCATG	CAGAAGATCT	TGTAGATAAA	TATCTTCCTC	TTTATAAGGA	1680
ACGTATCATC	ATTACAAAGG	GTGGTGCTGA	CCGCAATACA	AGTATTAAGA	ACATCATTTGA	1740
AGCCATTGAT	GCTTATCGTC	CGCTTACTCC	AGAGGATATC	GTTGTTACCC	ACGATTCTGT	1800
TCGTCCATTT	ATTACACTTC	GCATGATTCA	GGACAATATC	CAACTTGCCC	AAAATCATGA	1860
CGCAGTGGAC	ACAGTGGTAG	AAGCGGTTGA	TACTATCGTT	GAAAGTACCA	ATGGTCAATT	1920
TATTACAGAT	ATTCCAAATC	GTGCTCACCT	TTATCAAGGA	CAAACACCTC	AAACATTCCG	1980
TTGCAAGGAC	TTCATGGACC	TTTATGGATC	TCTTTCTGAT	GAAGAGAAGG	AAATCTTGAC	2040
AGATGCATGT	AAAATCTTTG	TGATCAAAGG	AAAAGATGTG	GCTTTGGCCA	AAGGTGAATA	2100
CTCAAATCTG	AAGATTACAA	CCGTAACAGA	TTTGAAGATT	GCAAAAAGTA	TGATTGAGAA	2160
AGACTAGTAA	AATGATTAAT	CAAATTTATC	AACTAACTAA	GCCTAAGTTT	ATCAATGTCA	2220
AATATCAGGA	AGAGGCTATT	GACCAAGAGA	ATCATATCCT	TATCCGTCCC	AACTACATGG	2280
CTGTCTGTCA	TGCGGATCAG	CGTTACTATC	AGGGAAAACG	TGATCCCAAG	ATTTTGAATA	2340
AAAAGCTTCC	AATGGCAATG	ATTCACGAGT	CATGTGGAAC	CGTCATTTCT	GACCCGACCG	2400

816

GAACCTACGA	GGTTGGTCAA	AAAGTTGTCA	TGATTCCCAA	TCAGTCTCCT	ATGCAGAGTG	2460
ATGAAGAATT	CTATGAAAAC	TACATGACAG	GGACCCATTT	CTTGTCTAGT	GGATTTGATG	2520
GCTTTATGAG	AGAGTTTGTT	TCTCTCCCTA	AAGATCGTGT	GGTGGCTTAT	GATGCTATTG	2580
AAGATACGGT	TGCAGCCATT	ACAGAGTTTG	TCAGTGTGGG	CATGCACGCT	ATGAATCGTC	2640
TATTGACTCT	TGCTCATAGC	AAGCGGGAGC	GGATCGCCGT	TATTGGAGAT	GGAAGTTTAG	2700
CTTTTGTGGT	TGCCAATATT	ATCAACTATA	CTTTGCCAGA	AGCAGAGATT	GTGGTTATTG	2760
GTCTGCATTG	GGAAAAGTTG	GAAGTCTTCT	CATTTGCCAA	AGAATGCTAT	ATTACGGATA	2820
ATATTCCTGA	AGATTTGGCC	TTTGACCATG	CTTTTGAATG	TTGTGGTGGT	GATGGTACTG	2880
GACCAGCTAT	TAATGACTTG	ATTCGCTACA	TTCGTCTCA	GGGAACGATT	CTCATGATGG	2940
GAGTTAGCGA	ATATAAAGTC	AATCTCAATA	CTCGCGATGC	CTTAGAAAAG	GGCTTGATTT	3000
TGGTTGGGTC	ATCTCGTTCT	GGTCGCATTG	ATTTTGAAAA	TGCTATCCAA	ATGATGGAAG	3060
TCAAGAAATT	TGCCAATCGT	CTTAAAAATA	TCCTTTATCT	AGAAGAACCT	GTAAGAGAAA	3120
TTAAAGATAT	TCATCGTGTC	TTTGCAACCG	ATTTAAACAC	AGCCTTTAAA	ACAGTGTTTA	3180
AGTGGGAAGT	ATAAGTACTG	GAGGTTAATT	GTGGAGAAAA	TCATTAAAGA	AAAAATTTCT	3240
TCCTTACTTA	GTCAAGAAGA	GGAAGTCCTC	AGTGTGAAC	AACTGGGTGG	AATGACCAAT	3300
CAAAACTATT	TGGCCAAAAC	AACAAATAAG	CAATACATTG	TTAAATTCTT	TGGTAAAGGG	3360
ACAGAAAAGC	TTATCAATCG	ACAAGATGAA	AAGTACAATC	TTGAACTACT	AAAGGATTTA	3420
GGCTTAGATG	TAAAAAATTA	TCTTTTGTAT	ATTGAAGCTG	GTATCAAAGT	AAATGAGTAT	3480
ATCGAATCTG	CGATTACGCT	TGATTCAACG	TCAATCAAGA	CCAAGTTCGA	CAAAATTACT	3540
CCAATATTAC	AACTATTCA	TACGTCTGCT	AAGGAATTAA	GAGGAGAATT	TGCTCCTTTT	3600
GAAGAAATCA	AAAAATACGA	ATCCTTGATT	GAAGAACAAA	TTCCTTATGC	CAACTATGAA	3660
TCTGTTAGAA	ATGCAGTCTT	CTCCTTAGAG	AAAAGACTGG	CTGACTTAGG	TGTTGACAGA	3720
AAATCTTGTC	ATATCGATTT	GGTGCCTGAA	AACCTTATCG	AATCACCTCA	AGGACGACTT	3780
TATTTGATTG	ACTGGGAATA	TTTATCAATG	AATGATCCAA	TGTGGGATTT	GGCTGCCCTC	3840
TTTTTAGAGT	CTGAATTCAC	TTCCCAAGAG	GAAGAAACTT	TCTTATCTCA	CTATGAGAGT	3900
GACCAAACAC	CGGTTTCTCA	TGAAAAGATT	GCTATTTATA	AAATTTTACA	AGATACTATT	3960
TGGAGTCTAT	GGACTGTCTA	TAAGGAAGAG	CAAGGTGAAG	ATTTTGGTGA	CTATGGTGTG	4020
AATCGTTACC	AAAGAGCTAT	TAAAGGTTTG	GCTTCTTATG	GAGGTTCAGA	TGAAAAGTAA	4080
AAACGGAGTT	CCTTTTGGCC	TTCTCTCAGG	TATTTTCTGG	GGCTTGGGTC	TAACGGTTAG	4140
TGCTTATATC	TTTTCGATTT	TTACAGATTT	GTCACCCCTT	GTGGTGGCTG	CAACTCATGA	4200



TTTTTTGAGC ATCTTTATCT TACTAGCTTT TCTCTTGGTA AAAGAAGGGA AAGTTCGCCT	4260
CTCAATTTTC TTAAATATTC GCAATGTCAG TGTATCATC GGAGCCTTGC TAGCAGGCCC	4320
TATCGGTATG CAGGCCAATC TTTATGCAGT TAAGTATATC GGAAGTTCTT TAGCTTCATC	4380
TGTATCGGCT ATTTACCCTG CGATTTCAGT TCTATTGGCT TTCTTCTTTT TGAAGCACAA	4440
GATTTGCAAA AATACTGTAT TTGGGATTGT CTTGATTATT GGAGGGATTA TTGCTCAGAC	4500
CTATAAGGTT GAACAGGTTA ATTCTTTCTA CATTGGGATT CTTTGTGCTT TGGTTTGTGC	4560
TATTGCATGG GGAAGTGAGA GTGTTCTTAG CTCTTTTGCC ATGGAAAGTG AATTGAGTGA	4620
AATCGAAGCC CTCTTAATCC GTCAAGTAAC TTCGTTCTTG TCCTATCTTG TGATTGTGCT	4680
CTTCTCTCAT CAGTCATTTA CTGCAGTAGC CAATGGACAA TTGCTAGGTC TCATGATTGT	4740
TTTTGCAGCC TTTGATATGA TTTCCCTACTT GGCTTATTAT ATCGCTATCA ATCGCTTGCA	4800
ACCAGCCAAG GCTACAGGCT TGAACGTGAG CTATGTAGTA TGGACGGTCT TGTTCGAGT	4860
TGTTTTCTTG GGTGCACCGC TAGATATGCT GACCATTATG ACGTCACTTG TCGTCATTGC	4920
TGGAGTTTAT ATTATTATTA AAGAATAAAG GAGATTCGTG TGAAAGCCAT TATCTTAGCA	4980
GCGGGATTGG GAACTCGCTT GCGTCCTATG ACTGAAAATA CCCCTAAAGC CTTGGTTCAG	5040
GTTAATCAAA AACCTTTGAT TGAGTACCAA ATTGAGTTTC TCAAAGAAAA AGGAATCAAT	5100
GACATCATCA TCATTGTTGG TTATCTTAAA GAACAATTCG ATTACTTGAA AGAGAAATAC	5160
GGTGTCGTC TCGTTTTCAA TGATAAATAC GCTGACTACA ATAACTTTTA CTCTCTCTAT	5220
CTTGTA AAAAG AGAATTGGC CAACAGCTAT GTTATTGATG CTGACAATTA TCTCTTTAAA	5280
AATATGTTCC GCAATGATTT GACACGTTTC ACTTATTTTA GTGTTTATCG TGAAGATTGT	5340
ACCAACGAAT GGTTCCTGGT TTATGGAGAT GACTACAAGG TTCAAGACAT TATTGTTGAT	5400
AGCAAGGCAG GTCGCATCCT TAGTGGTGTA TCCTTCTGGG ATGCTCCAAC TGCAGAAAAG	5460
ATTGTCAGCT TTATCGACAA GGCTTATGTA AGTGGTGAAT TTGTTGATCT CTATTGGGAC	5520
AATATGGTTA AGGATAATAT CAAAGAGCTA GATGTCTATG TTGAAGAATT AGAAGGCAAT	5580
AGCATTTATG AGATCGATAG TGTCCAAGAC TATCGTAAAT TAGAAGAAAT TCTTAAAAAC	5640
GAAAATTAAA GATTCCAACA TCTGACAAAA TAGTCGGATG TTTTTTGATT TTTTACGAAC	5700
TTTTACGAAT AGATAGATGA GTAGAAAAAG AAATGGAGTT ATTTATGAAA ATCACAAACT	5760
ATGAAATCTA TAAGTTAAAA AAATCAGGTT TGACCAATCA ACAGATTTTG AAAGTGCTAG	5820
AATACGGTGA AAATGTTGAT CAGGAGCTTT TGTGGGTGA TATTGCAGAT ATCTCAGGTT	5880
GCCGTAATCC AGCCGTTTTT ATGGAACGTT ATTTTCAGAT AGACGATGCG CATTTGTCGA	5940

818

AAGAGTTTCA	AAAATTCCCA	TCTTTCTCTA	TTTTAGATGA	CTGTTATCCT	TGGGATTTGA	6000
GTGAAATATA	TGATGCGCCT	GTACTTTTAT	TTTACAAGGG	AAATCTTGAC	CTCCTGAAAT	6060
TCCCGAAGGT	AGCGGTCGTG	GGCAGTCGTG	CTTG TAGCAA	ACAGGGAGCT	AAGTCAGTTG	6120
AAAAAGTCAT	TCAAGGCTTG	GAAAATGAAC	TGGTTATTGT	CAGTGGTCTG	GCCAAGGGCA	6180
TTGACACAGC	AGCTCATATG	GCAGCTCTTC	AGAATGGCGG	AAAAACCATT	GCAGTGATTG	6240
GAACAGGACT	GGATGTGTTT	TATCCTAAAG	CCAATAAACG	CTTGCAAGAC	TACATCGGCA	6300
ATGACCATCT	GGTCTAAGT	GAATATGGAC	CTGGTGAACA	ACCTCTGAAA	TTTCATTTTC	6360
CTGCCCCGTA	TCGCATCATT	GCTGGACTTT	GTCGTGGTGT	GATTGTAGCA	GAGGCTAAGA	6420
TGCGTTCAGG	TAGTCTCATT	ACGTGTGAGC	GAGCAATGGA	AGAAGGACGC	GATGTCTTTG	6480
CTATTCCTGG	TAGCATTTTA	GATGGACTAT	CAGACGGTTG	CCATCATTTG	ATTCAAGAAG	6540
GAGCAAAATT	GGTCACCAGT	GGGCAAGATG	TTCTTGCGGA	ATTTGAATTT	TAAAAATGAC	6600
CTAAGCTAGA	ATTCTAAGAA	AAAATCAATT	TTAAGAGAAA	ATGAACCCAA	CATTTCCATA	6660
ATAAAACGCA	TATTAGCAAG	TTTTTAACAC	TTGATAATAT	GCGTTTTTTC	TAAGTGGAAT	6720
AGTAGAGTAG	AGGATTTTTC	TCATATAATA	CTCTTCGAAA	ATCTCTTCAA	ACTACGTCAG	6780
CTTCCATCTG	CAACCTCAAA	ACAGTATTTT	GAGCgaCTtC	GTCAGTCTTA	TCTACAACCT	6840
CAAAGCAGTG	CTTTGAGCAA	CCTGTGGCTA	GCTTCCTAGT	TTGCGCTTTG	ATTTTCATTG	6900
AGTATAAGGG	AAAGTATAGT	GAATTGAAAT	AAGATGTGAA	CAACTCTATC	AGGAAAGTCA	6960
AATTAATTTA	TAGAAATATT	TTAGCAGCCA	AGGTGTACTG	TTATAGATTC	AATTACACTA	7020
TAATTTAGTG	TAATTGAGAA	AGGAGAAATG	ATTGTGATTG	ATGTTGGCTA	GGTTATGTTT	7080
AATGATTTCCT	ACCGTCTCAA	ATCTTGTCAG	TAAGGAAAAA	TAAATTCTTC	AAAAGTAGAG	7140
ATTACAAGGC	TTGTTTAAGA	AAGAATTCAA	AGACCTTGAC	AAATAAAAAAT	AAAATGGTTA	7200
TTATAAAAAA	TGGTCTGAAA	TAGATGATGA	TACTTTTCGA	AAATCTCTTC	AAATACGTCA	7260
GCTCAGCTTT	GCCTTGCTGT	GTTTTGAGCA	AGCTACGGTT	AGCTTCCGAG	TTTGATTTTC	7320
ATTTACTAGA	AATGAAACTG	ATGAGAGATA	TCAGTAGACA	TTTGAGTCAG	GATATTATGG	7380
AAAATGATAA	AAAGAGCTCG	TGAGATTGGC	ATATCAGACT	ACTAAAGTAT	TGAGTTTGT	7440
AGGATTTTAG	CGACTAGTTA	GCTGGGAAAG	GAAGATATTT	GTGACAAATA	ATAAACTGTA	7500
TTTCGTTGATA	GAATTTAGAA	ATAAAATATA	TGAAGAATTA	GAACTTTCCA	GAAGTGATTT	7560
AGCGATTTTA	CTATGTGCCA	TGCTTATCGC	CTCTATCGGA	TTAAATATGG	ATTCGACTCC	7620
CGTGATTATT	GGAGCCATGT	TAATCTCTCC	TTTGATGACA	CCTATTCTGG	GAGTGGGGCT	7680
CTCTCTAGCT	ATATTTGATT	TTAAATTGTT	AAGAAAATCT	TTTAAATAT	TAGCTATTCA	7740

819

AATTCTTGCC AGTCTAATAG CTTCAACACT TTATTTTAT CTTTCTCCCA TTTCGTATGC	7800
TAGTTCGGAG ATTGTTGCTA GAACCTCTCC GACTATTTGG GATGTTCTCA TTGCTTTTGT	7860
AGGAGGGATA GCAGGTATCA TTGGTGCTAG GAAAAAAGAG AC	7902

(2) INFORMATION FOR SEQ ID NO: 113:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 18627 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 113:

GAAGTTGAAA TGGCCAGCTG ATGAGCAATA TCGGTCATAG AAATCTTCTC AATCAACTTT	60
TGCGCAATTT TTTGGTGAT AATACGAGGA ATTTGGTGAT TTTTCTTGAC GATAGAAGTT	120
TCAGCGACCA TCATTTTGA ACAGTGATAG CACTTGAAAC GACGCTTCT AAGTAGAATT	180
CTAGTAGGCA TACCAGTTGT CTCAAGGTAA GGAATCTTAG ACGGTTTTG AAAGTCATAT	240
TTCTTCAATT GGTTCGCCA CTCAGGGCAA GATGGGCGT CGTAGTCCAG TTTGGCGATG	300
ATTTCTTGT GTGTATCTT ATTGATGATG TCTAAATCT GGATATTAGG GTCTTTAATG	360
TCTAGTAATT TTGTGATAA ATGTAATTGT TCCATATGAA TCTTTCTAAT GAGTTGTTG	420
GTCGCTTTC ATTATAGGTC ATATGGGACT TTTTCTTCTAC AATAAAATAG GCTCCATAAT	480
ATCTATAAGG GATTTACCCA CTACAAATAT TATAGAGCCA AAAATCCTTT GTTTACTAAA	540
CAAGGGATTT TTCTTTGTC TCTGCTCCTT TTTTGATATA ATAGTTCTAT GTTAAATCA	600
GAAAAACAAT CACGTATCA AATGTTAAAT GAAGAATTGT CCTTCCTATT GGAAGGCGAA	660
ACCAATGTTT TGGCTAATCT TTCCAACGCC AGTGCTCTCA TAAATCACG TTTTCCTAAT	720
ACCGTATTTG CAGGCTTTTA TTTGTTCGAT GGAAAGGAAT TGGTTTTAGG CCCCTTCCAA	780
GGAGGTGTTT CCTGCATCCG TATTGCACTA GGCAAGGGTG TTTGTGGTGA GGCAGCTCAC	840
TTTCAGGAAA CTGTTATTGT TGGAGATGTG ACGACCTATC TCAACTATAT TTCTTGATG	900
AGTCTAGCTA AAAGTGAAAT TGTGGTGCCG ATGATGAAGA ATGGTCAGTT ACTTGAGTT	960
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CAATTTGTCG CTATTTTGCT TGAAAAGACA GCATGGGACT TTACGATGTT TGAGGAAAAA	1080
TCTTAATGTA TCAAGCACTT TATCGAAAAT ATAGAAGTCA AAATCTCTCC CAGTTAGTTG	1140
GTCAAGAAGT TGTGGCTAAG ACTCTTAAAC AAGCGGTGGA GCAAGAGAAA ATAAGTCACG	1200

820

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GGGTAGATGA AATTCGCGAA ATTCTGTATA AATCTACCTA TGCGCCTAGC CTTGCTCGTT	1440
ATAAGGTTTA TATCATAGAT GAGGTTTACA TGCTGTCTAC AGGGGCTTTT AATGCCCTCC	1500
TAAAGACGCT GGAAGAACCA ACACAGAATG TAGTCTTTAT TTTGGCCACT ACTGAATTGC	1560
ACAAGATTCC TGCTACTATT CTATCCCGTG TGCAACGTTT TGAGTTTAAA TCAATTAAAG	1620
CACAGGATAT TAAGGAACAT ATTCACTATA TCTTAGAAAA AGAAAATATC AGTTCTGAAC	1680
CAGAGCTGT GGAAATCATT GCCAGACGGG CGGAAGGTGG AATGCGGGAC GCCTTGCTTA	1740
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AGCATTTTAA TAGGAAAGAC TAGCCCTCAG CTTCCAGACA AAATCAAAGC CTTT'TAGGCT	3000

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TCCCAGCAAC	AGCTCGTGCA	AGTTTTTATA	TCTACAATAC	CAAGGCAGAT	TGCGACAAAC	6360
TAGTCGATGC	CCTACAAAAG	ACAAAGGAGT	TTTTCAATGG	CACCTTCTAA	ACTAGATAGC	6420
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GATGCTGAGC	AAATCAGTCT	CAACAATCCG	ACTTGTGGGG	ATGTCATCAA	CCTCTCTGTC	6540

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AAAAAATGCC	CATGCAAACT	TGGGGAGCAG	ACTTGTCAGA	GATTGACTTT	GATGACTTAA	7140
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CAACTATCCA	AAACTGGTCT	GATAACGTCT	ATAACTTGGT	AACAAAGCGT	GCTAAGGCTC	7740
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TCATGGATGA	CTTGTCAGCA	TCAGATACTA	TTCCATTTAA	TGAAATTCAC	AACTCGCAAG	8100
TGGCTTTGGA	ACACGAAGCC	AAAGTATCTA	AGATTTCAGA	AGAGCAATTG	TATTATCTCA	8160
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825

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AAAAGTTGAG GTAGAAAAAC GATGAAAATT CAAGACCTAT TGAGAAAAGA TGTCATGTTG	13980
CTAGATTGTC AGGCAACTGA AAAACAGCT GTCATCGACG AGATGATTAA AAATTTGACA	14040
GACCACGGTT ATGTAACAGA TTTTGAAACA TTTAAAGAAG GAATTTTGGC GCGTGAAGCT	14100
TTGACTTCTA CTGGTTTGGG TGATGGAATC GCAATGCCTC ACAGCAAAAA CGCTGCTGTC	14160
AAAGAAGCGA CAGTTCCTATT TGCTAAGTCA AATAAGGGTG TTGACTACGA GAGCTTGGAT	14220
GGACAAGCAA CTGACCTCTT CTTCATGATT GCAGCTCCAG AAGGTGCCAA TGATACTCAC	14280
TTGGCAGCCT TGGCAGAATT GTCTCAATAC TTGATGAAAG ACGGTTTTCG AGACAAACTT	14340
CGTCAAGCAA CATCTGCAGA CCAAGTTATC GAACCTTTTG ACCAAGCTTC AGAAAAAACT	14400
GAGGAACCTG TTCAAGCACC TGCTAATGAC TCTGGTGACT TTATCGTAGC TGTTACAGCT	14460
TGTACAACAG GTATTGCCA CACTTACATG GCCCAAGAAG CCCTTCAAAA AGTAGCTGCT	14520
GAAATGGGGG TTGGTATCAA GGTCGAAACC AACGGTGCTA GCGGTGTTGG AAATCAACTA	14580
ACTGCAGAAG ATATCCGTAA GGCTAAAGCT ATTATCATTG CAGCAGACAA GGCCGTTGAA	14640
ATGGATCGAT TTGATGAAA ACCATTGATC AATCGTCCAG TTGCTGACGG TATCCGTAAG	14700
ACAGAAGAGC TAATTAACCT GGCTCTTTCA GGAGATACTG AAGTCTACCG TGCCGCTAAT	14760
GGTGCCAAAG CTGCAACAGC CTCTAACGAA AAACAAAGCC TTGGTGGTGC CTTGTACAAA	14820
CACTTGATGA TGGGTGTATC TCAAATGTTA CCATTGTTA TCGGTGGTGG TATCATGATT	14880
GCCCTTGCCCT TCTTGATTGA CGGTGCTTTG GGTGTTCCTA ATGAAAACCT TGGCAATCTT	14940
GGTTCCTTACC ATGAGTTAGC TTCTATGTTT ATGAAAATTG GTGGAGCTGC CTTTGGTTTG	15000
ATGCTTCCAG TCTTTGCGGG TTATGTTGCC TACTCTATTG CTGAAAAACC GGGTTTGTA	15060
GCAGGTTTCG TGGCTGGTGC TATTGCCAAA GAAGGTTTTC CCTTTGGTAA AATTCCTTAT	15120
GCCGCAGGTG GTGAAGCAAC TTCAACTCTT GCAGGTGTCT CATCTGGTTT CTTAGGTGCC	15180
CTTGTGGTG GATTTATCGC AGGTGCCTTG GTTCTTGCCA TCAAGAAATA CGTTAAAGTT	15240
CCTCGTTCAC TCGAAGGTGC TAAATCAATC CTTCTATTGC CACTTCTTGG AACAACTTGG	15300
ACAGGATTTG TTATGCTAGC TGTGAATATC CCAATGGCTG CAATCAACAC TGCTATGAAT	15360

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GACTTCCTAG	GCGGTCTTGG	AGGAGGTTCA	GCTGTCCTTC	TTGGTATCGT	CCTTGGTGGA	15420
ATGATGGCTG	TTGACATGGG	TGGACCAGTT	AATAAAGCAG	CTTATGTCCT	TGGTACAGGT	15480
ACGCTTGCGAG	CAACTGTTC	TTCAGGTGGT	TCTGTAGCCA	TGGCAGCAGT	TATGGCTGGA	15540
GGAATGGTGC	CACCACCTGC	AATCTTTGTC	GCAACTCTTC	TTTTCAAAGA	TAAATTTACT	15600
AAGGAAGAAC	GTAACCTCTGG	TTTGACAAAC	ATCATCATGG	GCTTGTCATT	TATCACTGAG	15660
GGAGCGATTC	CATTTGGTGC	CGCTGACCCA	GCTCGTGCGA	TTCCAAGCTT	CATCCTTGGT	15720
TCAGCAGTAG	CAGGTGGACT	CGTTGGTCTT	ACTGGTATCA	AACTCATGGC	GCCACACGGA	15780
GGAATCTTCG	TTATCGCCCT	TACTTCAAAT	GCTCTCCTTT	ACCTCGTTTC	TGTCTTGGTA	15840
GGAGCAATCG	TAAGTGGTGT	GGTTTATGGT	TACCTACGCA	AACCACAAGC	ATAAAAAATA	15900
GAAAAATGAA	AAGATTGGAC	CGTTTGGTGC	AGTCTTTTTC	TCTTCCCGAA	ATGCCTGTGA	15960
AATATGGTAT	AATAGAAGAA	TGGCAAACAA	GAATACAAGT	ACAACAAGAC	GGAGACCGTC	16020
TAAAGCAGAA	CTGGAAAGAA	AAGAAGCGAT	TCAACGAATG	TTGATTTCGT	TAGGAATTGC	16080
GATTTTATTG	ATTTTCGCAG	CCTTCAAATT	AGGGGCTGCA	GGTATAACCC	TTTATAATTT	16140
AATTCGCTTG	CTAGTGGGTA	GCCTAGCTTA	TCTGGCGATA	TCGGCCCTAT	TAATCTATCT	16200
CTTCTTTTTTC	AAGTGGATAC	GAAAACAGGA	AGGACTCTTA	TCTGGCTTTT	TCACCATATT	16260
TGCTGGCTTA	CTCTTGATTT	TTGAGGCCCTA	CTTGGTTTGG	AAATATGGTT	TGGACAAGTC	16320
CGTTCTAAAA	GGGACCATGG	CTCAGGTTGT	GACAGATCTG	ACTGGTTTTTC	GAACGACTAG	16380
CTTTGCTGGA	GGGGGCTTGA	TCGGGGTCGC	TCTTTATATT	CCAACAGCCT	TTCTCTTTTC	16440
AAATATCGGA	ACTTACTTTA	TTGGTTCTAT	CTTGATTTTA	GTGGGTTCCTC	TCCTAGTCAG	16500
CCCTTGGTCT	GTTTACGATA	TTGCTGAATT	TTTCAGTAGA	GGCTTTGCCA	AATGGTGGGA	16560
AGGGCACGAG	CGTCGAAAAG	AGGAACGCTT	TGTCAAACAA	GAAGAAAAAG	CTCGCCAAAA	16620
GGCTGAGAAA	GAGGCTAGAT	TAGAACAAGA	AGAGACTGAA	AAAGCCTTAC	TCGATTTGCC	16680
TCCTGTTGAT	ATGGAAACGG	GTGAAATTCT	GACAGAGGAA	GCTGTTCAAA	ATCTTCCACC	16740
TATTCCAGAA	GAAAAGTGGG	TGGAACCAGA	AATCATCCTG	CCTCAAGCTG	AACTTAAATT	16800
CCCTGAACAG	GAAGATGACT	CAGATGACGA	AGATGTTTCT	GTCGATTTTT	CAGCCAAAGA	16860
AGCCCTTGAA	TACAAACTTC	CAAGCTTACA	ACTCTTTGCA	CCAGATAAAC	CAAAAGATCA	16920
GTCTAAAGAG	AAGAAAATTG	TCAGAGAAAA	TATCAAAATC	TTAGAAGCAA	CCTTTGCTAG	16980
CTTTGGTATT	AAGGTAACAG	TTGAACGGGC	CGAAATTGGG	CCATCAGTGA	CCAAGTATGA	17040
AGTCAAGCCG	GCTGTTGGTG	TAAGGGTCAA	CCGCATTTCC	AATCTATCAG	ATGACCTCGC	17100
TCTAGCCTTG	GCTGCCAAAG	ATGTCCGGAT	TGAAGCACCA	ATCCCTGGGA	AATCCCTAAT	17160

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CGGAATTGAA GTGCCCAACT CCGATATTGC CACTGTATCT TTCCGAGAAC TATGGGAACA	17220
ATCGCAAACG AAAGCAGAAA ATTTCTTGGA AATTCCTTTA GGGAAGGCTG TTAATGGAAC	17280
CGCAAGAGCT TTTGACCTTT CTAAAATGCC CCACTTGCTA GTTGCAAGTT CAACGGGTTT	17340
AGGGAAGTCA GTAGCAGTTA ACGGCATTAT TGCTAGCATT CTCATGAAGG CGAGACCAGA	17400
TCAAGTTAAA TTTATGATGG TCGATCCCAA GATGGTTGAG TTATCTGTTT ACAATGATAT	17460
TCCCCACCTC TTGATTCCAG TCGTGACCAA TCCACGCAAA GCCAGCAAGG CTCTGCAAAA	17520
GGTTGTGGAT GAAATGGAAA ACCGTTATGA ACTCTTTGCC AAGGTGGGAG TTCGGAATAT	17580
TGCAGGTTTT AATGCCAAGG TAGAAGAGTT CAATTCCCAG TCTGAGTACA AGCAAATTCC	17640
GCTACCATTG ATTGTCGTGA TTGTGGATGA GTTGGCTGAC CTCATGATGG TGGCCAGCAA	17700
GGAAGTGGA GATGCTATCA TCCGTCTTGG GCAGAAGGCG CGTGCTGCAG GTATCCACAT	17760
GATTCTTGCA ACTCAGCGTC CATCTGTTGA TGTCTCTCTT GGTGTGATTA AGGCCAATGT	17820
TCCATCTCGT GTAGCATTTC CGGTTTCATC AGGAACAGAC TCCCGTACGA TTTTGGATGA	17880
AAATGGAGCA GAAAACTTC TTGGTCGAGG AGACATGCTC TTAAACCAG TTGATGAAAA	17940
TCATCCAGTT CGTCTCCAAG GCTCCTTTAT CTCGGATGAC GATGTTGAGC GCATTGTGAA	18000
CTTCATCAAG ACTCAGGCAG ATGCAGACTA CGATGAGAGT TTTGATCCAG GTGAGGTTTC	18060
TGAAAATGAA GGAGAATTTT CGGATGGAGA TGCTGGTGGT GATCCGCTTT TTGAAGAAGC	18120
TAAGTCTTTG GTTATCGAAA CACAGAAAGC CAGTGCCTCT ATGATTTCAGC GTCGTTTATC	18180
AGTTGGATTT AACCGTGCGA CCCGTCTCAT GGAAGAACTG GAGATAGCAG GTGTCATCGG	18240
TCCAGCTGAA GGTACCAAAC CTCGAAAAGT GTTACAACAA TAAAAAATA GCTTCTTTCC	18300
AAGTTTGAG GGAAGCTATT TTAGTGGCTA TTGATTGCTT TTATTTTCTG AAGTTGGCGC	18360
ATTGGACTGT TTTTCGTTTT CAGTAGCAGG TTTACTTGAA GCAGGAGTAG AAGAGTCCTG	18420
AGTTGCTGTT TTCTGATCTT CTTTTTCTC TTCCTTGACG CTAGATTTTG GTGTTTCCTC	18480
TGCTGTGTT TTTTCTTGAC TAGTGTTAGT CTCTTTAGTT GGACTGGTGT TTTCCCTTAGG	18540
GGATTCCTTT TGGATTCTT TGACAATGGT TGTCGTCTGG CTGTCTGTAG GTTCTTTTTT	18600
AATATTTTGG TTATTATCCA AGGCGTT	18627

(2) INFORMATION FOR SEQ ID NO: 114:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2560 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 114:

TAAAATACGT TACCTTGCTT CTGCACGTTT AGCAGGTAAG TCATTGAAAT TTAAAGATCA	60
AGATATTACA ATTGAAGAAA CGACTGAAAC AGCTTTTGAA GGAGTTGATA TTGCTCTCTT	120
TTCAGCAGGT AGTTCTACAT CAGCTAAGTA TGCACCATAC GCAGTAAAAG CTGGCGTGGT	180
AGTAGTAGAT AATACATCTT ATTTCCGTCA AAATCCAGAT GTTCCTTTGG TTGTTCCAGA	240
GGTCAATGCT CATGCACTTG ATGCTCACAA CGGAATCATT GCCTGCCCTA ATTGTTCAAC	300
AATTCAAATG ATGGTGGCTC TTGAGCCGGT TCGCCAAAAA TGGGGCTTGG ACCGTATCAT	360
TGTTTCAACT TATCAAGCCG TTTCAGGTGC TGGTATGGGA GCAATTCCTG AGACACAACG	420
TGAACTTCGT GAAGTCTTGA ATGATGGTGT GAAACCACGT GATTTGCATG CGGAAATCTT	480
GCCTTCAGGT GGTGACAAGA AACATTATCC TATCGCCTTT AACGCTCTTC CACAAATTGA	540
TGTTTTCACT GATAATGATT ACACGTACGA AGAGATGAAG ATGACCAAGG AAACCTAAGAA	600
AATTATGGAA GATGATAGCA TTGCAGTATC TGCAACATGT GTGCGTATTC CAGTCTTGTC	660
AGCTCACTCT GAGTCTGTTT ATATCGAAAC AAAAGAAGTG GCTCCAATCG AAGAAGTAAA	720
AGCAGCTATC GCAGCCTTCC CAGGTGCTGT TCTTGAAGAT GATGTAGCTC ATCAAATCTA	780
TCCTCAAGCT ATCAATGCAG TTGGTTCGCG TGATACCTTT GTTGGTCGTA TCCGTAAAGA	840
CTTGATGCA GAAAAAGGAA TTCACATGTG GGTGTTTCA GATAACCTTC TCAAAGGTGC	900
TGCTTGAAC TCAGTTCAGA TTGCTGAAAC TCTTCATGAA CGTGGATTGG TTCGTCCAAC	960
AGCCGAATTG AAATTTGAAT TAAAATAGTC ATATCGTTTA GGAGTTCAGA TGAACCTCTT	1020
CTTTGAAATA GAGAGGTGTT TTCGTGTCTT ATCAAGATTT AAAAAAATGT AAAATCATT	1080
CAGCCTTTAT TACCCCTTTC CATGAGGATG GTTCCATTAA CTTTGATGCT ATTCCAGCCT	1140
TGATTGAGCA TTTATTGGCC CATCATACGG ATGGAATTC TCTCGCAGGA ACGACTGCTG	1200
AGAGTCCAAC TTTGACCCAC GATGAGGAGT TGGAGTTGTT TGCGGCTGTA CAAAAGGTTG	1260
TCAATGGACG CGTTCCTTTG ATTGCGGGTG TAGGTACTAA TGATACGCGT GACTCTATTG	1320
AGTTTGTCAA AGAAGTAGCG GAATTTGGTG GTTTCGCAGC TGGGCTTGCT ATTGTTCCCTT	1380
ACTACAACAA ACCTTCTCAA GAAGGGATGT ATCAGCACTT TAAGACTATT GCAGATGCTT	1440
CTGACCTACC AATTATTATC TATAACATTC CAGGGCGTGT AGTTGTCGAA TTGACTCCAG	1500
AAACCATGCT TCGCTTGGCT GACCATCCAA ATATTATCGG TGTCAAAGAA TGTACTAGCT	1560
TGGCTAATAT GGCTTACTTG ATTGAGCACA AGCCTGAAGA GTTCTTGATT TATACAGGTG	1620
AGGATGGAGA TGCTTTCCAT GCCATGAACC TTGGGGCGGA TGGGGTTATT TCTGTTGCCT	1680

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CTCATACAAA TGGGGATGAA ATGCACGAGA TGTTTACTGC GATTGCAGAA AGCGATATGA	1740
AGAAAGCCGC AGCAATTCAG CGTAAATTCA TTCCTAAGGT TAATGCTCTC TTCTCTTATC	1800
CAAGTCCTGC TCCAGTTAAG GCAATTCTTA ACTATATGGG ATTTGAAGCT GGACCCACTC	1860
GTCTACCTCT TGTTCAGCA CCAGAAGAAG ATGCCAAACG CATTATCAAG GTTGTCGTAG	1920
ATGGCGACTA CGAAGCAACT AAGGCAACTG TAACAGGGGT CTTAAGACCA GATTACTAAT	1980
AAAGACAATA AAATCCGGCT CTTTGTCAAC TGAGTGGGT TGAAGTCAGC TAAGCTCGAG	2040
AAAGGACAAA TTTTGTCTT TCTTTTTTGA TATTCAGAGC GATAAAAATC CGTTTTTTGA	2100
AGTTTTCAAA GTTCCGAAAA CCAAAGGCAT TGCCTTGAT AAGTTGATG AGATTATTGG	2160
TCGCTTCCAA TTTGGCGTTT GAATAGGGTA GTTGAAGGGT GTTGACGATT TTCTTTTGT	2220
CCTTTAGAAA GGTTTTAAAG ACAGTCTGAA AAATAGGATG AACCTGCTTC AGATTGTCTT	2280
CAATGAGTCC GAAAAATTTC TCCGGTTCCT TATTCTGAAA GTGAAACAGC AAGAGTTGAT	2340
AGAGCTGATA GTGATGTTTC AAGTTTTGTG AATAGCTCAA AAGCTTGTTT AAAATCTCTT	2400
TATTGGTTAA GTGCATACGA AAAGTAGGAC GATAAAATCG CTTATCACTC AGTTTACGGC	2460
TATCCTGTTG AATGAGTTTC CAGTAGCGCT TGATAGCCTT GTATTCGGGA TTTTCGATGA	2520
AACTGATTCA TGATTGGAC ACGCACACGA CTCATAGCAC	2560

(2) INFORMATION FOR SEQ ID NO: 115:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11303 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 115:

TATTGGATTT CCCTTGCAAT CAGTTTATGG GACAAGCACC CGGCAGCGCA GAGGAAATCA	60
ACGCCTTCTG TAGCCTACAT TTTCAAACCA CCTTCCCACG TTTTGCCAAG ATTAAGGTCA	120
ACGGTAAGGA AGCAGACCCT CTCTATGTCT GGTTACAAGA CCAGAAATCC GGCCCACTAG	180
GAAAACGAGT CGAATGGAAT TTCGCTAAGT TTCTCATCGG TCGAGATGGG CAAGTCTTTG	240
AACGCTTTTC TTCAAAAACA GACCCAAAAC AAATTGAAGA GGCGATACAA ACTCTACTAT	300
AATTCACAAT CTCCTATGA TTAGGTTTCC TTAAACCTGA TGAATAGTGA GATTTTTTGA	360
TGGGCTTTGA CTTAAATAGA AAAACACCCC ATGATATGAA ACATGAAGTG TTGTAAAGTC	420
TATGTTGTAG GTGCTTATTT CACAATTCA ATGTGACCAG TGATAACGAA TACCATACAG	480

832

AATCTTCATA TACACTAAAC AAATGACTTT CTAATTATTT CAATTAGTTT TGGCTAGTAA	540
ATATCATTTC CAACAAACGC CCTCTCAATT CCTTATCCTG ATGATGCAAG ATATTCATTA	600
AGTCATGAGA GTTTTTCGCA TTGATGAATT GATTTAACAA TCTATCTTTT AATTCATATG	660
GAAGAGAAGC TGTCTTTAGT AGTCTAAAAA CTTTCGTCATT TAAAGATGTC CTTTTATTAT	720
CTTTCCATTTC AAATTTAGCT GTATCATTCT TATTTGGCAA TTCAATTATA GACACATTCTG	780
TTCCTTTAAA ATGAATTCTA TGTTTTCTAT TGCTTGGAAC GATACTAGAA TCTCCTTGTA	840
ATGCTAACTC TACCATTCCC ATTTCCCAAT CGATTGATAA TCTTGTTTTA TATCTTTGAC	900
CATTTTGATC TTCAAGCATT TCAAAAGAAT GTTGTTTTCC TGGGAATACA TACCAATCTA	960
CAACTTCAGG TAAATCAACA CCCATACCTA TCTCAGAACC AACCAAGGGA ATGATTGCAC	1020
CACTTTTTGC AAACACAGGC GTAGTCGAGA TGTCCCTATA AACACTTAAC TTCACACCAC	1080
CTGTGTATTT TTTCTCTGAA AAGAAGTCAT ACCATTACAC TTCAGGGAAC CATACATCTA	1140
CTTTTGACAGA TTGGAATGTC AAATCCATCT TTTCTACAAT GGGAGCCACC ATCAGTTCTG	1200
TTCCAAAAAA GTATTGGTTT GGAACATTAT AGCTCTCATC ATTCTCTGGA TAGAAATAAT	1260
AGATTGGACT GATTAATGGG GCACCTTCCT CATGTGTCTG TACATTTCATG GTATATAGAT	1320
AGGGAATCAT CTGATGTCTC AAACGAAGGT ATTTCTTCAT AATCTTAGAT GTTGTCTCTG	1380
AAAAAAACCA AGGTTCCTTA CTATTAAAAG GACTTCTAGA ACTATGTAAT CGAGTAATCG	1440
GACTAAAAAC ACCAAACTGT AGCCATCTAG TTTGTAGCTC TTCGTCATAA TCCCCAACA	1500
TATGTCCACC GATATCATGA CTCCACCAAC TATAACCGAT ATTAGATGCT GTCGCTGTAA	1560
AATAGGGTTG AAATCTTAAG GAATTCCAAC TAATAATAGT ATCCCCTGAA AAACCAACAG	1620
GGTAGCGGTG ACTACCAGGA CCTGCATATC TTGATAAAAT CAAACCACCT TCTGCATTTT	1680
TACAACTATC CTGATAGTGA TAATGGTTTA AAAGCCAAAG TGGATCTAGC ATACCTTGTG	1740
TCCCTTGTTG CCAGTCAATC CACCAAAAAT CTACTCCCTG CTTTCTAGT TCATAATGAA	1800
CATCTTTAAA GTAGGCTTCC CTAAAAGAGG GATTAAAAAA ATCAAAAATA GCAGGTTCTT	1860
CTAGTTCTAC ATTTAACCCC AACCGTTTGT CGATTGAGG ATAAGCTTCT TCATAAGCCC	1920
GTATCCCATC AGCAGGATGG ACATTTAAGG AGAGTTTGTAG CTTTCTATCA TGAAGTTGTT	1980
GCAATAACTG TTCTGGATTT GGTATTAAGT TTCTATTCCA ACTATATCCT GTCCAGCCAC	2040
TTCCAAAGCG AGCTGGAATG TCAGTTATAT GCCAATCCAT ATCTAACACA CCGATAGATA	2100
ATGGAATTTT CTCTGTTTCA AATCTGTCTA TTAAATCCAA GTATTCATCC GACGTATAAG	2160
GCCAATATCT ACTCCACCAA TTGCCTAAAG CATATCTTGG CAACAAGGGT GTTGAACCAG	2220
TCAATGGTA AAAATCTCTG ATTGCTCCTC TATAATCATG CCCATAGGCA AAGAAATACA	2280



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GGTCAATTTG ATTTTCTCTC TCAATATAAC CAGATTGTTC ATCCCAAATA AATCCTTGAG	2340
AATCATCCAA TAAGGCTATA CCATTTCTGGC TAATAATTCC ATCTTCTAAC GAGATTGCTC	2400
CATCTGCCTT ATCCAGAGTC CGAGCTGTTC CTTTAAACGT TTCAATAGAT TCACCAAAAT	2460
ACCAGCGACT ACCATATACG GCAAAATTTC CTTTAAATTC TATAAATAAA TTTTCGGCGT	2520
TAAATTCTCC TTTATTAAAG TGCAGATGAA AATAGTCCGT CATAATATCT AGTACGTTTG	2580
ATGTCTCGAT ATAATCTAAC GAAATTGGC CAAAATCTCT ATTATAGATA AGTTGTGTCTG	2640
TTCTATCCTC AAAACTTCCA GTTTGAGAGT ATTCTAACCT TACTAGCTTG TCTGTTAATA	2700
CAGAGATTCTG ATAAACTCT CCCTTAAAAA TTTTCAATTT GTTTCCTCC TTTTATGGTA	2760
GCATAAAAAAC AGAACGCACC ATTTTGTATG CGTTTTTCAT TATTCTGAAT GCAATGTTCT	2820
ATCTGTTATA TCTATGACAA ATAATAGTCA ATTGAAAAA TGCAGTGGAC AAAATATCTT	2880
TTAACAAACC AAGAGTTTAT TAAAGAGTTA TCACTTTTCA ACTTTTCTAA GCTTATGCAG	2940
TTGTGAAACA AACTACTTTT AACTATTAA CTAAGATAGG ATTGATAAAT AATTTCAAAC	3000
TCTTACTAGC AATCATACGA TATTCAAGCT CACGTGCTTT TTTCTTCTCT GCTTATTTCT	3060
TAGAACTGAA GAACCCGGAT CGGTATATAA ATTATCCGGA TCAACATAGT CATAAGATTC	3120
ATAACAGTTG CGCTTCATTA AGTCATCCCC AGAGCAAGAG CTTCATCTCG TAATTTTTC	3180
ACATCACTAA CCGTAGGTCG CCATCCTTCA ATCATATTG TACTTAAAGC ATACCAAACA	3240
CTCTTAAAAA CGGATCGGTT TTCAAAGCT ATTCCCATGA TTGTCATCTT TTCTTTATCT	3300
ATATCTAAGG ACATATGCTA CCTCCTTTAG ATACATTATA CCATGTTTCT CTGTAGCTTT	3360
TAAAAATTTT ATTTTGTTTG TCATATCTAA GTTTTCAGCA CGCTTATCCT ATTTTATAAG	3420
CCTCAAACCC AAATATAAAA CGCATTCTTT TTGCTTTTTT ACTATTGTAT CGTATTCTAC	3480
GATAACATAC TTTACTTTAT TGTTTTTTTA AATAACAGCA GTTCCCTGTT TATCAACTAT	3540
TCGAACTACT TTCTATTTTG CTTCATACCC TACATAGCGA AAAAATATGA AAAAGCAGAG	3600
AAGAATATCT TAAAAAGACC TCTTCACTGC TAATATTAAC ACTCATTATT TAACTATAT	3660
GGATTCTATC ATCGAGTATA CTTTTTACT TATTAGATAC CTTGCTCTTC TTTCACCAAT	3720
TTTTGATCAT ATACACGGAT GAATGGAAGA TAGACTAGGA ATGCTGCAA TGCACATACT	3780
AGAGCAACTA ATACAGCTCG AAGATCTGCT GTCCCTAAGA AAGCTCCAAT CCCTACTGGA	3840
GTTGGCCATG GAACCTGTGC GATAATTGGC TTAATAAAGT TTAGAGAATT CGCTACGTAA	3900
TAAATAGTAG CAGTAACCAT TGGTGCTAAA ATAATGGTA TAGCCAAGGC TGGATTATAG	3960
ATAATAGGTA ATCCAAAAAT TAATGGTTCA TTAATATTAA ATAAGGCTGG AACTACAGAT	4020

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GCTCGTCCTA	TTGCTTTAAG	CTGTTTCAGAT	TTAGAGGCAA	AAGCAATATA	TAAACATAGT	4080
CCTAAAGTTG	CACCAGAACC	ACCTGCAATT	ACAAACATAT	TAGAAAATTC	ACCTGCAACA	4140
GCGAAGTGCC	CGCCAGCAGC	ATTTTCAGCC	ATGTTAGCAA	GAGCAATTGG	ACTAACAAAT	4200
GCAAAAAACA	TGTTTCGCACC	GTGGATACCT	ACAATCCAAA	GTAGTTGAGT	CAATAGATAA	4260
ATAATCATTA	AACCAATCCA	CGAATTAGTC	AGATTGGATA	CAAAACCAAA	TGGAATTGCA	4320
ATGACTTTAA	AAATATCTGT	TCCCATTGCT	ACAAGAAGAC	CGTTGATAAA	GATAACAACA	4380
AATGCAACAA	CAAATCCCGG	AACCAAAGCG	GTAAATCCAC	GAGAACTCC	TTCTGGAACA	4440
GCTTCAGGCA	TTTTAATAAC	CCAATTATGT	TTAACACACA	TACGATAAAT	AAGAACAGTC	4500
ACAATTGCCA	TAATGATTGC	GGTAAAAATC	CCTGTTGTCC	CAAAACGTGC	GACTACATTT	4560
CCCATTGCCC	ATCCATCTGC	AATTACTGCA	CCTTCTTTTA	GACTTGTCAC	AGTCTTCATC	4620
ATTCCACCAT	CAAAAATGAT	TTGCGGTACT	GTCATGACAA	AAGCCATCAA	GGCAAGCAAG	4680
GCACCATTAA	GAGGATTCAT	ATTGAGTTCT	TCTTCCTCTG	CATAAATTTT	TGTCAATTCA	4740
TATGCAAGTG	ATAGAACGAA	ATAAAGAGAT	AGAGAACCCA	TAGTCGCATA	GTTTGCAACC	4800
ATGTAAAGTG	ATGTGAATTT	ATCAAATGAA	GCAGAGAAAA	TATCTGCCAC	AATTGGCCAA	4860
AATGAGAAAG	CTTGTGGCAA	AATACTGAAT	ACCAAAAAACA	TTGATCCTAC	AATAGTAAAT	4920
GGTACAGCAG	CCATACCTGC	AGCCGTGATA	GCACGTACTA	CTTTAAACTG	AGCAAGTTTG	4980
CCCATTGCTC	CCATAACATG	GTTTTCAAGA	AAACCAAACA	ACCCGTTTTC	TTGATCCATA	5040
AATAGACCTC	CTTAATAAAA	CATAATAATT	TTTACTTTCT	AAAGACTAGT	TTCAAATACA	5100
AATTATACTA	GATCAGGATT	ATAAACTAAG	TGAGTCTTTT	TCCAATTGGA	CAAATTGTTG	5160
ATAAGCCTTA	TCTGTTTCGT	TATAAATTTT	TTTAATTCCT	CTAATGTCTA	ACAAACTCAG	5220
AACTAAACCT	AATAGAAGAA	CTACAAAAAC	AAATAAACGT	GCTACTTGGT	TATTTTCAAA	5280
AATCGGAAAA	AGATTCTTAA	ACCAACTTGT	CCAAGTTAAA	ACAAGTAATC	CTATTGAAAT	5340
AAGCATTTGT	ATTCTAACAA	ACATTAGTGT	TATTCCCAAC	TTTTCTTTCC	TATTTCCA/TA	5400
AAGTTTAAAT	TGTTCAACAG	TTGCTAAAAT	AGAAAATACT	ATGAGCATAA	TGGGGAAAAAT	5460
AATAATAGGC	GAGGGACTAA	TAACTGACT	CAAAAGCCAA	TAAATATTCC	CAAAAAAGAA	5520
GAGTGCTATT	GAATAACGTA	GAAGAAGATA	TCGATTGAAA	AAAGTATTAG	TTAGAGCCAT	5580
CTCTCGACGT	TGTTGTTCAA	TCTTTTGTCT	TTCTTTTTTA	TCCATATCAT	TTCTCTCCTTA	5640
TATAACAACA	CATATTTAGT	TAACTTTCTT	ATAAAGAGCT	AACATTTCCCT	TTGCTACTTC	5700
TAATAATGTC	ATAGTGGTCA	TTAAATGATC	TTGAGCATGT	ACCATGATAA	TTTCAATTTT	5760
AATTTCCACT	CCACTTGCGT	ATTCTTGCAA	GAGTTTGGTT	TGTGCATGAT	GCGCTTCAAG	5820

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AATTATCTCA	TTTGATTGAT	TTAATTTACT	TTCTGCATCA	TCAAAACTAC	CTTCTCTCAT	5880
TTTTGCAAAT	GCTTCATGTA	TTTCTGACCT	TGCATTTCCC	GAATGCAGGA	TAATTTCAAA	5940
TGCTGCAACC	TGCAGTTCCT	CTTGATTTCAT	ATAAACCTCC	TATTTTATCT	TCTCAAATAT	6000
GTTAATAAAA	TCTTCAAAGT	TATTGCAAGA	TATTAGCTGA	TTTTGCAATT	CATCATTCTC	6060
TGTCAGAGAG	ACTATCTTTT	TAGTCACAGT	TGCCAAACCT	TCGTTCCCAT	ATATTGATGG	6120
AGATAGAAGA	AATACTAGCT	GGACATGTGA	ACTTTGATTA	TCCCAGAGTA	ACGAATCTTT	6180
ACAAATTGCA	ACCGAAACCT	TTCCCTCTGT	ACCAAAGGCG	TGAATAGGAT	GCGGAACCTG	6240
AATTTTTTTC	GAAAAACAA	CTGAACCTAA	TTCTTCGCGC	TGTTTAATTC	CATAAAGTAA	6300
AGATTGTTCA	AACTCATTG	ATTACCAAC	AGATAAACTC	TCAACCATCT	TTTCAAGTAA	6360
ATTTACCTTG	TCTGATTTCAG	TACATATTAA	AAAGTTTCT	TTACTAAAAT	ACTGTCTAAA	6420
GCCGTGTGTT	TCAAATTGTT	TAATCTTTGA	TGATTGTACA	TAAGTAGAAA	CTTGCATCTA	6480
ATCCATAGCT	TTTCTAATCA	TTTCCATCTC	ATCACTCTTA	AGAAACACAC	TAACCTTAAA	6540
AACTGGGATT	TGAAAATATA	GATTTGATAA	ATCAATAGCT	GACACTATAA	AATCTATTCC	6600
TTTAAGTTTT	TCTTGATTCA	ATTCATAGTA	GCCTATTACA	TCAACAACCT	CTACTCGCTT	6660
CCCAAACCTC	GTTTCCAAAC	GATTTCTTAA	CATTTGGGCT	GCACCAAATC	CTGTTGCACA	6720
AATAGCAAGA	ATATTAAACT	TAGTACTCTC	TTTGCTACGT	TCCATAGCAG	CTAAAAAGTG	6780
AAGACTTACA	TATGCTACTT	CATCATCTGA	TATTGTCCAC	TCCAAGAACT	TGTCCATATT	6840
TGCAAGAATT	TCTCTAGTCA	TAAAGAATAT	ATCACTATAA	TTCTGTTTAA	TTTCATCTAC	6900
CAAAGGGTTA	TTTAAGGTAA	TCCGGCTTTC	TAAACGTACT	TGTAGTGTC	TTAGATGAGT	6960
TATCAATCCT	TCAATTAGTT	GGAAATCTGA	AGAAAAGTTA	TACATATCAT	CTAATCCTAA	7020
ATTCTGAAAT	GTTTTAAATA	AAGATTTTTT	TAAAACCTCT	TCAGAAATAT	TCTTCTGATT	7080
TTTTTGACAT	TGTTGACTCT	TAGCTAACAA	ATGCAAAGTA	ATGTAGTCTA	TTTCCTGAAC	7140
TGGAAATTCC	TGATTTGTTA	CTTCTCTTAC	TTTAGAAAGA	ATTCTTTGGG	CAACCTTTCT	7200
CTCTATTGCA	TCATCAGTCA	TCTGACAGTC	TATATTTTTT	ATTTCAAATC	CGGATTTTAA	7260
ACGAATCACA	GACAATGCTA	TGTGAACTAC	TAAATTCTGT	AGTACAAAAT	CAGATAGTTT	7320
TAGGTTGGCC	TCTTGGCATT	CATCCAAAAC	AATTCTAGCA	AATTCTTCTA	ATGGAACAGT	7380
TTGATCAAAA	AAGTTAAATT	TTACATAGCA	ATGTATTGTT	TTAAAAAATT	GATTCTCTAG	7440
GAAATAATTT	ATGATAAAAC	GTCGTTTATC	ACGTTCTCTG	CCTGAGACAT	AAACTCCTTT	7500
ATTCGCCCTA	CTCTCAATGG	ACAAATTATA	CTCTGATAAC	ATCACTCGTA	TCTTTCTGAA	7560

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ATCATGAGAT	AATGTTGAAC	GACTAACGTA	AAGTTCATCA	GCTAAATCAT	CAAAAAGAAC	7620
TGGAACCTGC	TCAAATAATA	ATTTATTTAA	GATAAATACT	AAACGATCAT	CACCTTTTGA	7680
AACCGCAGTT	TTCGTATAGT	CTTCTTCCAG	TTCATAAGTT	TGTCTAAACT	CCTGGTAAGC	7740
GCCTTGATTC	TCAAAAAATA	TTTGATACCC	TTGACCTTGT	TTTGAAATCA	ACCGGACTCC	7800
TTGAATAATC	ATTGTCTTCT	CAATTAATTT	CAGTACATTA	CGGACAGTTC	TATCTGAACA	7860
GGATAAATAT	TCTGCCAGTT	CTTTGCTTGT	AACAAAACGT	TCCTTATTTT	TTATTAATAA	7920
TTGAAGGATA	TCTTTCTCTT	TAATGTTTAA	CACATTCATT	CCCTCCTAAA	ACGTATGTTT	7980
TCATATATTG	AAGCATATTA	TACACTTAAA	TCAGTTTATA	TCAAACCTCA	AACAATTTAT	8040
CTTAACCTAA	ATATTTATTG	ACATTTTCATG	TGTTTCATCA	ATATTCTCAA	GAATCAAATT	8100
AGCCATTTTT	TCAATTCCCA	TTGGAATAGG	AATATAGGCT	TGAGGAGGTA	TTTGTACAAC	8160
TGGTTTTCCCT	GCTTTAGAAC	CAGCCTCTTC	AAATTGCTTA	AAGTACATTT	TTGTTTGAGG	8220
ACTGACAAGA	TACAAATCAA	AAGCTGCTGC	TGCGATAGCT	TTCCCTCCTT	CAGTAGCACT	8280
AATAGCATCA	ACTACAATAT	CTTTCCTTTT	TCCTTTTAGA	AACTCTGTTG	TTTCTGTGTC	8340
CATAAGTGAT	GAAGACATTC	CTGCTGCACA	AATAATTAAA	GCTTTTGCCA	TAATATTTTC	8400
TCCTTTTCTT	AAATCCAATC	AAAGCTGTGC	TAAAGTTGGCT	TATTTGTTAT	CTATTTTAT	8460
TATAAAATAA	AGCGTTTCCA	ATGACAATTC	CCTCATTTTC	CTAAATGATA	TGGAAAAAAA	8520
TTATTTATAC	TTCAATTTAT	AAAATAAAAT	TATTCCTGAG	AGTAGAAATG	AAACACTATT	8580
TGCTAAAATC	AAAGGCAAGT	CTCCTATACG	AATACCATGA	GCAAGCCACA	ATGCAATACC	8640
AATAACTTGC	ATAACATACA	TACCTAGAGC	AATAGATCCT	GTGTCCTTTG	TCTTAACCTAC	8700
ACGAAAAACT	TGTGGTAAAA	ATGCAAATGT	TGTTAAAATT	GCTGCAATAC	TTCCAATCAT	8760
ATGTCACCTC	AATATGCTAA	ACAACTGAG	AATAATCTCA	GTTTGTATTAT	ACTATTCTAC	8820
TGATTACCCG	TTAGATGAAA	TAACCTCCTT	ATACCAGCCA	AAAGATTTTT	TCGGGGAACG	8880
ATTATAACTT	CCCTTCCCAT	TATCATCTTT	ATCTACATAA	ATAAAGCCAT	AACGTTTCCG	8940
CATTTACCCG	GTACCAGCTG	AAACCAAATC	AATACATCCC	CATGGAGTAT	AACCCATTAA	9000
ATCAACACCA	TCTTCAACTA	CAGCCTTTTT	CATTTACCGA	ATATGGGCAC	CTAGATATTC	9060
AATTCATATA	TCATCATGTA	CCATACCATC	TGCTGCAACT	TGATCTATAG	CTCCAAAACC	9120
ATTTTCAACA	ATAAAGAGTG	GTAAGTGATA	GTGGTCTGTA	AACCAATTTA	ACGCATAACG	9180
CAAACCTTCT	GGATCAATTT	GCCACTCCCA	TTCAGAAGCC	TTAACATAAT	TATTTTTCAC	9240
TAAATCTTCT	GTTTCAAGAT	AATCAAAATA	AGGATTATTT	TCACGATGAG	AGTCGATAGC	9300
AAAGGACATA	TAGTAACTGA	AACCAATGTA	ATCTACAGTC	CCACCAAGTA	AATCTTCTTT	9360

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ATCCTGGGCA	GTAAAATCAA	CTGAAATACC	TTTTCGTTCC	CAATACTTGA	AAATATGCTC	9420
AGGATATTTA	CCTAAAACAT	GCACATCAGC	AAAATAATAA	CGCTTCTGCA	TAGCTTTCAT	9480
TGCCATTAAG	ATATCCTTAG	GATTGCAAGT	AACTGGATAA	ATTGGACACA	TCGCAATCAT	9540
ACAACCTATT	TGAAAATCTG	GATTAATCTC	ATGACCAATT	TTTACAGCTC	GTGCAGAAGC	9600
AACTAATTCG	TAATGTGCTG	CTTGATACAT	AATTGCTTCT	CTATTATCAC	CTTCCTCATA	9660
TACAATACCT	GAGTTAGTAA	ATGGTGCAAA	ATCTTCCTGA	TAATTCGCTT	GATTATTGAT	9720
TTCATTGAAA	GTCATCCAAT	ATTTAACCTT	ATCTTTGTAA	CGTTTAAATA	CGACTTCTGC	9780
AAAACGAGCA	AAGAAATCAA	TCAATTCCTT	ATTTTTCCTT	CCACCATATT	CGGTCACTAA	9840
GTGATAAGGC	ATTTCAAAT	GAGATAGAGT	GATGACAGGT	TCAATACCAT	TCTTTAAGCA	9900
TTCATCAAAA	AGATTATCAT	AAAACGTAA	TCCTTCTTCA	TTCGGCTCTA	ACTCATCACC	9960
TTTTGGAAAG	ATACGTGTCC	ATGCAATAGA	GGTACGGAAG	CACTTGAATC	CCATTTACAGC	10020
AAAAAGTGCT	ATATCTTCTT	TATAACGGTG	ATAAAAATCT	ATCGCCTCAT	GATTTGGATA	10080
ATATTTACCC	TCTAAACTC	CCAAAGTAAT	TTCACGAGCT	ACTCCATGAC	GACCAGCAGT	10140
CATAACATCA	GCAACACTAA	TTCCCTTGCC	ACCTTCTTGC	CATCCACCTT	CAAGTTGATG	10200
AGCAGCAACA	GCACCACCCC	ATAAAAATCC	ATCTTTAAAA	GTAGTCATCT	TTTTTCCTCC	10260
TGACTTTGAT	ACTCTTATTA	TAAACCTTAA	ACCAAAAGAT	GAAAACGCAT	TCTTTTTCCT	10320
TATTGTTAAG	GAAAGAAGTA	ATTTTAAATG	GAAATAGAAC	AATATCTTCT	TGTATTCTCG	10380
TAATGATATC	TTTACGATTT	TCAATACTTT	CAAACACAA	AAACTCTCAC	AATAATCTTA	10440
ATTCCCTGTG	TCTATAAACG	ACTTATCGCT	TTCTGGCATC	CCAGAATCAT	CTTCTATATA	10500
ACGTTCAACT	TGCATCTGCA	AGTGATATTT	TTTTCTTAAA	TCTAAGATTT	TCTGCATTGT	10560
CTTTGATTGA	TAATGTTTAT	CTAAAGTTTC	TTGATTTATC	CACTGATCAA	TAAGGAGAAT	10620
AGTTCCCTCT	TTTTCAATTG	GTAAAAAATA	TTCGTATTTT	AAGTTACCTT	TTTGATTTCT	10680
AATTTCTTTA	ACAAGGCCAC	TATCAAGCAT	TTCTCTTGCA	AACTTTATTG	CACTATCTCC	10740
ATCACCTTTA	TAATATACAT	GAATAGTCAA	TGTCATCTTA	TATCCTCCAA	AATCATCCTT	10800
CAATTTTAAA	AAAACAAGTT	TAGATGAGGA	TCTAAACTTG	TTTTTTATGA	ACTAATTATC	10860
TAACGTTTCG	CCATTACTTT	CAATCACTTC	TTTATACCAA	TAAAATGATT	TTTTCTTATA	10920
GCGATTTATA	GTCAATTGAA	ACAAGAGCAG	GACAAAAGAG	CCTCATAAAA	GGTATTGCAA	10980
CTTGGAATA	CCTTTTGTAG	GTGCTTTTGT	ATATGAGCCC	ATGTTTTCTC	AATAGGATTG	11040
TACTCAGGTG	AGTAGGGAGG	AAGAGGTAAA	AGTTTATACC	CAAACCTTTC	ACACAAGAGT	11100

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TCTAGCTTCC CCATTCTATG GAATCTTGCA TTATCCATAA TAATAACCGA TGGTGTGGTT	11160
AATGTTGGTA AGAGAACTT CTGAAACCAA GCTTCAAAAA AGTCGCTCGT CATCGTCTCT	11220
TCGTAAGTCA TTGGAGCGAT TAACTACCA TTTGTTAGAC CTGCAACCAA AGAAATCCTC	11280
TGATATCTTC TTCCAGATAC TTT	11303

(2) INFORMATION FOR SEQ ID NO: 116:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3112 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 116:

CCTTAGATTT CCACTTGCCA GAGGAATTGA TTGCCCCAAC GCCCCCTGAA AAACGTGATG	60
CCTCCAAACT CCTCATCGTC AACCGTGAGA CAGGAGAAAT GCAAGATAAA CATTTCCTACT	120
CTATTATTGA TATGCTGGAA CCTGGTGATG CCCTTGTCAT GAACGACACC CGAGTTCTCC	180
CTGCCCGCCT CTATGGTCAA AAAGTGGAGA CAGGAGGTCA TGTGGAACTT CTCCTCCTTA	240
AGAACACTAG TGGAGACGAG TGGGAAGTTC TGGCTAAACC TGCCAAACGC CTCGAAGTCG	300
GTACTCGTAT CAGCTTTGGT GATGGCCGCC TCAGCGCTGT CGTTACAGAA GAATTGACCC	360
ACGGGGGACG CATTTGTCGC TTTGAATACC AAGGAATTTT CCTAGAAGTC TTGGAAAGTC	420
TGGGAGAAAT GCCTCTGCCA CCTTATATCC ACGAAAAATT AGATGACCGT GAACGTTATC	480
AAACCGTCTA CGCCAAGGAA AGTGGCTCTG CTGCAGCACC GACTGCTGGT CTTCCTTCA	540
CCAAAGAACT GCTGGCAGAA ATCCAAGCTA AGGGTGTTCA TCTAGTCTAT CTGACTCTCC	600
ATGTCGGA CT CGGAACCTTT AGACCTGTTT CTGTGGATAA TCTGGACGAA CACGAAATGC	660
ACTCAGAGTT CTATCAACTT TCTGAGGAAG CTGCTGCCAC CCTTCGCTCT GTCAAAAAAA	720
ATGGTGGTCG TGTCATCGCT GTCGGAACCA CTTCTATCCG CACCTTGGAA ACTATTGGTT	780
CCAAGTTTGA TGGGCAAATC CAAGCAGATT CTGGTTGGAC CAATATCTTT ATCAAACCTG	840
GGTATGAGTG GAAGGTCGTG GATGCCTTCT CAACCAACTT CCACCTGCCA AAATCAACTC	900
TGGTCATGTT GGTTCCTGCC TTTGCAGGCC GTGAATTAGT CTTAGATGCC TACCACCATT	960
CCATCCAAGA AACTACCGC TTCTTCAGTT TTGGTGACGC CATGTTTATT TATTGAGAAA	1020
GAATTTCTCT AAATCTCTA ATACCAATAA ATCGCTAAGA TATTATTTCA AAGAACATCT	1080
ACAATTGAAA CTCTAGCTAG CTGTAGAAGA GGCCTAGTAC ATTGAAATTA AAATGCTTCC	1140
CCCTAGCTTC GAAAATATTG CCATAGATTG CGTTGACTCT CCAAATTGAT TCATCTATAT	1200

TTTATTTCAG	CTTCCTATAC	TTTCTTCGCT	GTTTGTAAT	CAAAATGCAA	GACACATGAG	1260
TAGCACCATA	TTTGTTACTC	TTATCTGTCC	TCTCAAGAGA	CTATTATGAG	TTATTTCAGA	1320
ATCATTCACT	ACTTTGACCC	TGACTCTCCT	TAGTCTCAAA	ATCAAAGACT	TATACTCTTC	1380
AAAAATCTCT	TCAAACCGCG	TCAACGTCAC	CTTGGATTAT	ATATGTGatC	TGaCTTCGTC	1440
AGTTCTATCT	ACAACCTCAA	AGCAGTACTT	TGAGCAACCT	GCGACTAGTT	TTCTAGTTTG	1500
CTCTTTGATT	TTCATTGAGT	ATTAAACAAA	AAGTGAACAA	ATCTGAATTC	TAATGTACAG	1560
AAGACTAGGC	TTGTTCACTT	TTTTATAGTC	GCTATAAGAT	GACCTTATCT	ATAGCTTTTT	1620
ATATATAATT	ATATATTCAG	ACATACTATT	ATCAATTTTG	TCGCAGGGAG	GAATCTGTTA	1680
ACGCACCCAT	TCACCATTAT	CATTGACTCT	ATAGCCATCT	ATACTTGTAT	TGACCGCTAA	1740
CTCACCCGAT	GTATTTACAT	AATACCATTT	ACCACCAACT	TGGAACCATT	GATTGACTTT	1800
CATAGAACCG	TTGCTGTTGA	GGTAGTACCA	TGAACTATTA	ACTTGTACCC	AACCTGTTGC	1860
CATGGAACCA	TCAGTATTAT	AAAAATACCA	CATACCATTT	TCTTGTTTCC	AGTCTGTGTG	1920
TGGAGCAACT	GCTTTAGCTG	GTTCTACTGC	TACATCTGTT	CCTTGGTTAG	ATGTAACAGA	1980
TACAGGATAC	GAAGGAATAG	ATGATTGCTC	AGGAACAACA	ACTTTTTCAG	GTTCTCTCGT	2040
CCCTCTCCTT	ATACGTCTTT	TTACCATCTC	TTTAGTAATT	TGACGAGAAG	TAGTTTCTTC	2100
AATGTTTCCA	TCACGTTCAT	CTACAGTATA	GATGTAGTA	AGAGTAATTT	ACCAATTTCT	2160
CCTACTTCTT	CTACTTCTTG	ACTTTTATCA	AGAGTTGGGC	CATCGAGATA	TTCTGTTTCG	2220
ATTGGAATTT	CTTGGAACAAG	AACTTGGGGC	TTGGTTCTTT	TTTTAACAAC	TCTTGTTTGA	2280
GAGTCTTTTT	TTTGACTTAA	AGTACTCTCA	GTTACTTGTC	CACTCTTTCC	ATCTACATTA	2340
TAAGTTATCG	TTGTAACGTG	TTTCCCATTC	TTTCTAGAG	TAATCTCTTG	CTCCTGTCCT	2400
GCAGAAAGGT	CATTGTCTGC	TTCATATTTA	GTAGCAAATG	GAACAAGAAC	TTCTTCAACC	2460
TTGCTTTTAG	CTGGAACTTT	GATAACTGTA	TCCGTGGCTT	CTTTTCTATC	AACAGTAACC	2520
TGTTGCGTAA	CATAACCAGT	CTCTGGATTA	ACATCGTAGG	TCCTTGTCGT	AGTTACATAG	2580
CCATCCTCTC	CATCAATTGT	AACAGGATTT	TCACTACGGT	CTTTTGTTTC	ATCTTTTTCA	2640
TAACGAATTC	GCGTACTTGA	AATTTTCTTG	GTTACTACCT	TAGGTTTAGT	CGTACTTTTT	2700
ACAATAATAT	CCCCATTGTC	AGCGTCATCA	TACTCTATTC	CCTCTTCTTT	ATCTCTAGTA	2760
TCATCTCTGA	CATATTGAAT	CCCATCAGCA	GCATGAACAA	AACTTGATTT	CAGATTCCTC	2820
CTAAAAATAA	AGTTAGCCCG	ATTACCGCAG	AACCAAAAAT	CTTCCGAGT	TTACGTATTG	2880
CATAGCGCTT	ATTAGTATTA	GATTTTGCCA	TTACATCCTA	CTTCTAGTAT	AGCATCTTTT	2940

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CTATCAAACG TTAAACAATA TACGTTATAT ATAAAATAGA CTTAGAATGA TATATTGATT	3000
ATTGAACATA CACTTTAACT ATATCGTAAT CAATCTCATA TATAAAGGAT TGCAGACATC	3060
TTATCTAAAT ACATGCGAAT ATATTTAGAT ACAAACATTC CAACTTGATA AT	3112

(2) INFORMATION FOR SEQ ID NO: 117:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4327 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 117:

CCCAAAAATC TCTTCAAACC ACGTCAGCTT CGCCTTGCCG TAGTATGGTT ACTGACTTCG	60
TCAGTTCTAT CCACAACCTC AAAACAGTGT TTTGAGCATC ATGCgGCTAG CTTCTTAGTT	120
TGCTCTTTGA TTTTCATTGA GTATAAAAC AGATGAGTTT CTGTTTTCTT TTTATGGACT	180
ATAAATGTTC AGCTGAACT ACTTTCAAGG ACATTATTAT ATAAAAGAAT TTTTGAAC	240
TAAAATCTAC TATATTACAC TATATTGAAA GCGTTTTAAA AATGAGGTAT AATAAATTA	300
CTAACGCTTA TAAAAAGTGA TAGAATCTAT TTTTATGTAT ATTTAAAGAT AGATTGCTGT	360
AAAAATAGTA GTAGCTATGC GAAATAACAG ATAGAGAGAA GGGATTGAAG CTTAGAAAAG	420
GGGAATAATA TGATATTTAA GGCATTCAAG ACAAAAAAGC AGAGAAAAAG ACAAGTTGAA	480
CTACTTTTGA CAGTTTTTTT CGACAGTTT CTGATTGATT TATTTCTTCA CTTATTTGGG	540
ATTGTCCCCT TTAAGCTGGA TAAGATTCTG ATTGTGAGCT TGATTATATT TCCCATTATT	600
TCTACAAGTA TTTATGCTTA TGAAAAGCTA TTTGAAAAAG TGTTGATAA GGATTGAGCA	660
GGAAGTATGG TGTAATAGC ATAGGCTGAT GTCCATCATT TGCTTATAAA GAGATATTTT	720
AGTTTAATTG CAGCGGTGTC CTGGTAGATA AACTAGATTG GCAGGAGTCT GATTGGAGAA	780
AGGAGAGGGG AAAATTGGCA CCAATTTGAG ATAGTTTGTT TAGTTCATTT TTGTCATTIA	840
AATGAACGTG AGTAAAAGAA AGTTAATAAA AGACAAACTA AGTGCATTTT CTGGAGTAAA	900
TGTCTTATTT CAGAAATCGG GATATAGATA TAGAGAGGAT CAGTATGAAT CGGAGTGTTT	960
AAGAACGTAA GTGTCGTAT AGCATTAGGA AACTATCGGT AGGAGCGGTT TCTATGATTG	1020
TAGGAGCAGT GGTATTTGGA ACGTCTCCTG TTTTAGCTCA AGAAGGGGCA AGTGAGCAAC	1080
CTCTGGCAAA TGAAACTCAA CTTTCGGGGG AGAGCTCAAC CCTAACTGAT ACAGAAAAGA	1140
GCCAGCCTTC TTCAGAGACT GAACTTTCTG GCAATAAGCA AGAACAAGAA AGGAAAGATA	1200
AGCAAGAAGA AAAAATTCCTA AGAGATTACT ATGCACGAGA TTTGGAAAAT GTCGAAACAG	1260



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TGATAGAAAA	AGAAGATGTT	GAAACCAATG	CTTCAAATGG	TCAGAGAGTT	GATTTATCAA	1320
GTGAACTAGA	TAAACTAAAG	AAACTTGAAA	ACGCAACAGT	TCACATGGAG	TTTAAGCCAG	1380
ATGCCAAGGC	CCCAGCATTC	TATAATCTCT	TTTCTGTGTC	AAGTGCTACT	AAAAAAGATG	1440
AGTACTTCAC	TATGGCAGTT	TACAATAATA	CTGCTACTCT	AGAGGGGCGT	GGTTCGGATG	1500
GGAAACAGTT	TTACAATAAT	TACAACGATG	CACCCTTAAA	AGTTAAACCA	GGTCAGTGGA	1560
ATTCTGTGAC	TTTCACAGTT	GAAAAACCGA	CAGCAGAACT	ACCTAAAGGC	CGAGTGCGCC	1620
TCTACGTAAA	CGGGGTATTA	TCTCGAACAA	GTCTGAGATC	TGGCAATTTC	ATTAAAGATA	1680
TGCCAGATGT	AACGCATGTG	CAAATCGGAG	CAACCAAGCG	TGCCAACAAAT	ACGGTTTGGG	1740
GGTCAAATCT	ACAGATTCGG	AATCTCACTG	TGTATAATCG	TGCTTTAACA	CCAGAAGAGG	1800
TACAAAAACG	TAGTCAACTT	TTTAAACGCT	CAGATTTAGA	AAAAAACTA	CCTGAAGGAG	1860
CGGCTTTAAC	AGAGAAAACG	GACATATTCG	AAAGCGGGCG	TAACGGTAAC	CCAAATAAAG	1920
ATGGAATCAA	GAGTTATCGT	ATTCCAGCAC	TTCTCAAGAC	AGATAAAGGA	ACTTTGATCG	1980
CAGGTGCAGA	TGAACGCCGT	CTCCATTCTG	GTGACTGGGG	TGATATCGGT	ATGGTCATCA	2040
GACGTAGTGA	AGATAATGGT	AAACTTGGG	GTGACCGAGT	AACCATTACC	AACTTACGTG	2100
ACAATCCAAA	AGCTTCTGAC	CCATCGATCG	GTTCAACAGT	GAATATCGAT	ATGGTGTTGG	2160
TTCAAGATCC	TGAAACCAAA	CGAATCTTTT	CTATCTATGA	CATGTTCCCA	GAAGGGAAGG	2220
GAATCTTTGG	AATGTCTTCA	CAAAAAGAAG	AAGCCTACAA	AAAAATCGAT	GGAAAAACCT	2280
ATCAAATCCT	CTACCGTGAA	GGAGAAAAGG	GAGCTTATAC	CATTCGAGAA	AATGGTACTG	2340
TCTATACACC	AGATGGTAAG	GCGACAGACT	ATCGCGTTGT	TGTAGATCCT	GTAAACCAG	2400
CCTATAGCGA	CAAGGGTGAT	CTATACAAGG	GTGACCAATT	ACTAGGAAAT	ATCTACTTCA	2460
CAACAAACAA	AACTTCTCCA	TTTAGAATTG	CCAAGGATAG	CTATCTATGG	ATGTCCTACA	2520
GTGATGACGA	CGGGAAGACA	TGGTCAGCTC	CTCAAGATAT	TACTCCGATG	GTCAAAGCCG	2580
ATTGGATGAA	ATTCTTGGGT	GTAGGTCCTG	GAACAGGAAT	TGTACTTCGG	AATGGGCCTC	2640
ACAAGGGACG	GATTTTGATA	CCGGTTTATA	CGACTAATAA	TGTATCTCAC	TTAGATGGCT	2700
CGCAATCTTC	TCGTGTCATC	TATTCAGATG	ATCATGGAAA	AACTTGGCAT	GCTGGAGAAG	2760
CGGTCAACGA	TAACCGTCAG	GTAGACGGTC	AAAAGATCCA	CTCTTCTACG	ATGAACAATA	2820
GACGTGCGCA	AAATACAGAA	TCAACGGTGG	TACAATAAA	CAATGGAGAT	GTAAACTCT	2880
TTATGCGTGG	TTTGACTGGA	GATCTTCAGG	TTGTACAAG	TAAAGACGGA	GGAGTGACTT	2940
GGGAGAAGGA	TATCAAACGT	TATCCACAGG	TTAAAGATGT	CTATGTTCAA	ATGTCTGCTA	3000

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TCCATACGAT GCACGAAGGA AAAGAATACA TCATCCTCAG TAATGCAGGT GGACCGAAAC	3060
GTGAAAATGG GATGGTCCAC TTGGCACGTG TCGAAGAAAA TGGTGAGTTG ACTTGCTCA	3120
AACACAATCC AATTCAAAAA GGAGAGTTTG CCTATAATTC GCTCCAAGAA TTAGGAAATG	3180
GGGAGTATGG CATCTTGAT GAACATACTG AAAAAGGACA AAATGCCTAT ACCCTATCAT	3240
TTAGAAAATT TAATTGGGAA TTTTGTAGCA AAAATCTGAT TTCTCCTACC GAAGCGAACT	3300
AGAGAGATGG GCAAAGGAGA GATGGGCAAA GGAGTTATTG GCTTGGAGTT CGACTCAGAA	3360
GTATTGGTCA ACAAGGCTCC AACCCTTCAA TTGGCAAATG GTAAAACAGC GACTTTCCTA	3420
ACCCAGTATG ATAGCAAGAC CTTGTGTGTTT GCAGTAGATA AGGAAGATAT CGGACAGGAA	3480
ATTATTTGTA TAGCTAAAGG AAGCATCGAA AGTATGCATA ATCTTCCTGT AAATCTAGCA	3540
GGTGCCAGAG TTCCTGGCGG AGTAAATGGT AGCAAAGCAG CGGTGCATGA AGTTCCAGAA	3600
TTTACAGGGG GAGTTAATGG TACAGAGCCA GCTGTTCATG AAATCGCAGA GTATAAGGGA	3660
TCTGATTCGC TTGTAACCTCT TACTACAAAA AAAGATTATA CTTACAAAGC TCCTCTTGCT	3720
CAGCAGGCAC TTCCTGAAAC AGGAAACAAG GAGAGTGACC TCCTAGCTTC ACTAGGACTA	3780
ACAGCTTTCT TCCTTGGTCT GTTTACGCTA GGGAAAAAGA GAGAACAATA AGAGAAGAAT	3840
TCTAAACATT TGATTTTGTA AAAATGGCTC TTTGTCAACT GTAGTGGGTT GAAGTCAGCT	3900
AAGCTCGAGA AAGGACAAAT TTTGTCCTTT CTTTTTTGAT ATTCAGAGCG ATAAAAATCC	3960
GTTTTTTGAA GTTTTCAAAG TTCCGAAAAC CAAAGGCATT GCGCTTGATA AGTTTGATGA	4020
GATTATTGGT CGCTTCCAAT TTGGCGTTAG AATAGTGTAG TTGAAGGGCG TTGACGATTT	4080
TCTCTTTGTC CTTTAGAAAG GTTTTAAAGA CAGTCTGAAA AAGAGGATGA ACCTGCTTTA	4140
GATTGTCTC AATGAGTCCG AAAAATTTCT CCGGTCCTT ATTCTGAAAG TGAAACAGCA	4200
AGAGTTGATA GAGCTGATAG TGATGTTTCA AGTCTGTGA ATAGCTCAA AGCTTGTTTA	4260
AAATCTCTTT ATTGGTTAAA TGCATACGAA AAGTAGGGCG ATAAAAATGT TTATCGCTGA	4320
GTTTACG	4327

(2) INFORMATION FOR SEQ ID NO: 118:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 3521 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 118:

CTCTGGCCCT GCCACTCCAA CGTTTGTCA GGGTGCTTTT TTCATAAAGG AGTTCTTATG	60
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843

TTAGATATCA AACGTATTCG TACAGATTTT GAAGCTGTCG CAGAAAAATT AGCTACACGT	120
GGTGTAGATG CTGCTGTCTT GAATGAAATG AAAGAAATCG ATGCTAAACG TCGTAACATC	180
TTGGTCAAGG TTGAACTCT CAAAGCAGAA CGTAACACAG TTTCTGCTGA GATTGCCCAA	240
GCTAAGCGCA ACAAGGAAAA TACAGATGAC AAGATTGCTG CCATGCAAAA TCTATCTGCT	300
GAGGTTAAAG CCTTGGATGC TGAATTGGCA GAAATCGATG CTAAATTGAC AGAATTTACA	360
ACGACTCTTC CAAATATCCC AGCTGACAGC GTTCCTGTTG GGGCTGACGA AGACGACAAT	420
GTGGAAGTTC GCCGTGGGG TACTCCACGC GAGTTTGACT TCGAACCTAA AGCTCACTGG	480
GATCTCGGTG AAGACCTGG TATCCTTGAC TGGGAACGCG GTGGTAAGGT AACAGGCGCT	540
CGCTTCCTCT TCTATAAAGG CCTCGGTGCT CGTTTGGAAC GTGCTATCTA CAACTTTATG	600
TTGGATGAAC ATGGAAGA AGGCTATACT GAAGTCATCA CACCTTACAT AGTCAACCAT	660
GATTCTATGT TTGGTACTGG TCAGTATCCA AAATTAAAG AAGATACTTT TGAATCAGC	720
GATACCAACT TTGTCTTGAT TCCAACGTCT GAAGTTCCTC TGACAACTA CTACCGTGAT	780
GAAATCTTAG ACGGCAAGA TCTTCCAATC TACTTCACTG CCATGAGTCC GTCATTCCGT	840
TCTGAGGCTG GTTCTGCCGG TCGTGATACG CGTGGCTTGA TCCGTTTGCA CCAATCCAC	900
AAGGTTGAAA TGGTCAAATT TGCCAAACCA GAAGAATCTT ACGAAGAATT GGAAAAATG	960
ACAGCCAACG CTGAAAACAT TCTTCAAAAA CTCAACCTTC CATACCGTGT CGTTGCTCTC	1020
TCTACTGGAG ATATGGGCTT CTCAGCTGCG AAGACTTACG ACTTGGAAGT GTGGATTCCA	1080
GCACAAAACA ATTACCGTGA AATCTCAAGC TGTTCAAACA CAGAAGATTT CCAAGCCGT	1140
CGTGCCCAA TCCGTTACCG TGATGAAGCA GATGGAAGG TGAACTCCT TCATACCTTG	1200
AACGGTTCTG GACTTGACGT TGGACGTACA GTGGCTGCAA TTCTTGAAAA TTACCAAAAT	1260
GAAGATGGTT CTGTGACCAT CCCAGAAGCA CTTCGTCCAT ACATGGGTGG AGCTGAAGTC	1320
ATCAAACCAT AAAAAATAAG GTTTAGCTAT TTCTAGCTAG ACCTTTTTTC GTAACCAAT	1380
CAGATAAGCA CCTAGTACAA AGAATAAAAT AGTTAGGCAT ATAATGGTTT CAGCCAATAC	1440
CAGGTAATCC AGAAATGGAA GTTTCAAAAT TCCCTGAGCC ATCTTGAGCG AGGTCGCTGT	1500
GATAATGGTT GGGAAGGTGA GGGCTGAGAA GGCTGGTTGA AAACCTTGTT TTAAATGTT	1560
GGGCAGACGA GTTAAACAA AGAAAAAGAA GGATTGAGAA GCCAAAATCA TGACAATCAA	1620
GACCCAAGTC GGCAGGCTGG TTCCTCCTAC TCGAACTAGA GAAGCCAAGA GTAGAGAGAA	1680
AGGAGCACAG TAGATTCCTT CTTGTCCAAG CAAGGCTAGT GGGAGTGGAT GTTCTTTTAA	1740
ATCGCTATAA ATAAGGGGAT AGAGATAGAA GGTCAAGAGA AAACCAAAAC TCAAGGTCGC	1800

844

ATAGGCAATT TCGATAATAC CTACCAGAGG ATAGGTCAAG GCAGCCACTG CTATCCCCAC	1860
ATAGAGAACC GTCCAGCTTG GAGTGGCATG AACCCCTCCGC CCTGGACAAG CAAACTTGAT	1920
GGTAAAACCA GCAATCAAGG TCAAATCCAA GAGAAATGAA AACCACCAAA TCCCTTGTGC	1980
TACCAAAGGA AGATAAGAGA ATACGCGAAA GACATAGGTC GATAAAATCA TCCCAGCCAT	2040
AGGAAAGGTT GCCATTCTTG ACAAAGAGG GGGCTTGGTC AATTCTTGCT TGGTTTCTTT	2100
CCAATTAAAG AGATGCAGAA TTAGAAAGTA AATCCATAAA ACCAAACCAA TCAGACTAAA	2160
AAGATGGGAT AGAACCGGCA ACGTATCTAA AATAAGATTT CCAGCTCTG CCAAACCTAG	2220
CAAACAACCT GAAAATACTA AGGGGAGTTT TTTCATCCTA ACCTCCAATA ATCATGTTAG	2280
TTTCAGTATA ACATAAAAGC GCTTAAATGA GGATTTAAAA AAACGAGTCC GCTTATTCTA	2340
GACTTCATTT TACTCAGATA TGAATTAGGC ATAAGGTGTC AATTCTGGAT TAATTGGTGT	2400
ATTAGCTAAG TTGTTGGCAT AGTTACAGAG GATTGCTAGG CTGACACCAA AAACCACATC	2460
CAAGGCATTT TGTGAGTGT AGCCAGCTTC TAAAACTCA GACAAGGCTT CATCTCCTAC	2520
ACGACCCTTG GTATTGATAA CTGCCAAGGT AACTTAGCT AGGGTATCCA ATTTAGGATC	2580
TGTTTCAATT GGAGTACGAT TGCGAAGAGC TTGAATCAAG TCATCATTC TCTGGATTG	2640
TTTGATGGAA AAGGCTGTGT GACCTGCGAC ACAGAAGGCA CAACCATTGG TCACGGCTGC	2700
CGTGATTGTC ACCACTTCAC GCTCAACGGG TGTCAGGCTG TTGCGACGGT GGATAGATGA	2760
GACAATTGCG TAGGCTTCTA AAACAGTCGG GGCATTGGCC AAGAGACCGA TTAGGTTGGG	2820
AATATAGCCA TTGTTGTCTT TTTCTACTGT TTCAAGAATT TCTTTCACTT CTGCTGGTGC	2880
TGACTCTACT GTATGGATAG TAAATGTTGT CATAAGATAC CTCTTTTCTT ATTATTGACA	2940
CTAATATTAT TGGAAAATCT TATAAAATCC TGATTCCCTAA GTTTATCTAA GATAAAGCTT	3000
TATTCTCTCA TAAGATTTTC GTTGTTATAT TAGTTTATCA CACTTCCAAT CACTTGATTA	3060
ATATATATTA TATATCAGGC TGATAAAAAT TATTTATAGG CAAAAAATC ACACGAGCTG	3120
TGTGATTCCA TTATTTGTCA AAATACTTTT TAGTTTCAGC AATAACGACT GGCGACAAGA	3180
CCAAGAGGGC AATCAAGTTT GGCAGAGCCA TCAAGGCGTT AACGATATCT GCGATAATCC	3240
AGACCATATC CAACTCGATA AATCCTCCTA ACAAGACCAT GAGCACAAAA ACCACACGGT	3300
AGAGCCAGAT AAAGCGAACC CCAAAGAGGA ACTCAAACA GCGTTCTCCG TAATAGTTCC	3360
AACCTAGAAT CGTTGTAAAG GCAAAAAGTA CAAGGAAGAT GGTCAAGAGA GCAGGCCCAA	3420
AGTGTGAAAA GTTTGTTGAG AAAGCTGACT GAGTCAAGGC AACCCCATTC AAGTCACCGC	3480
TCCAAACTCC AGTTACCAAG ATGGTCAAAC CAGTTAGAGT A	3521

(2) INFORMATION FOR SEQ ID NO: 119:

845

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 1968 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 119:

AACCTGGGCA AGCAAGCTAA AAGCAATGGG ACCTGGAATC CTAATGGCAA CTGCCGCTGT	60
TGGAGGTTCC CACATTGTAT CCTCAACTCA AGCTGGCGGT TCTTACGGTT GGTCTCTACT	120
TCTCTTGGTC ATCTTAGCCA ATGTCTTTAA ATATCCATTT TTCCGTTTGT GTGCTGAATA	180
CACAGCTGAT ACTGGAAAGA CTTTGGTTGA AGGTTATGCC GAAAAAGGAA AACTCTATCT	240
CTGGATTTTC TTTATCCTCA ATGTCTTTTC GGCTATGGTC AACACGGCTG GTGTTGCCAT	300
TCTGTGCTCA GCTATCATCG CCAGTGCCTT CCCAATGATT GGACTTAGCA TTACTCAGTG	360
GTCCCTCATT CTCGTTGCAA TCATTTGGGC TATGCTACTC TTTGGAGGCT ACAAACTTTT	420
AGACGGCATG GTCAAATGGA TTATGTCTGC CTTAACCATT GCGACTGTTC TTGCAGTTAT	480
CATTGCGGCG GTCAAGCATC CAGAATACAG TTCTGATTTT GTCGAGAAGA CACCTTGGCA	540
AATGGCAGCT CTGCCCTTCA TCGTCTCCCT CCTAGGATGG ATGCCGGCTC CTATTGAAAT	600
TTCAGCCATC AATTCACTTT GGTCAGCTGA AAAGAGAAAG ACCGTCAACT TTAACACAGA	660
AGACGCTCTG TTTGACTTTA ACACTGGTTA TATTGGAACA GCTATCCTAG CCGTCTTCTT	720
TGTGGCACTG GGAGCACTGA TTCAGTATCC TACAGGGCAG GCGGTTGAAG CTGCTTCAGC	780
CAAATACATC TCTCAATTCT TGGGCATGTA TGCCTCTGTT CTTGGCGAAT GGTCCCGTTA	840
CTTGATTACC TTTATTGCCT TCCTCTGTAT CTTTGGGAACA GTTATAACTG TTATCGATGG	900
CTATCTCTCG GTTAATCAGG AATCTCTCCG ACTGCTAATC AGTCAAAAAG AGGACAATCG	960
TAAATCTTTG AACATCTGGA TGACCATCAC TGCTATCATC GGTATCGTCA TTATCAAGTT	1020
CTTCGCTGGT CAGGTTTCAA CCATGCTCCG CTTTGCCATG ATTGGCTCTT TCCTGACAAC	1080
ACCTTTCTTT GCTCTTTTGA ATTACGCCTT GGTAACGCGT GAAAACAAAA ATCTTCCTTC	1140
TTGGCTCAAA CACCTTGCCA TTGCGGGATT GATTTTCCTC TTTGCTTCGC CATCTTCTTT	1200
ATCTACGCAC TCGCAATCGG AAAAGCAGGG TAAGGGACAA GCGCGAGATG AAGATAAGGT	1260
TTCATTTCAA GAGAAAATTC AGCAAATATT TCTATGATAA AAAGCATAAG AACAAGGTTT	1320
TGAAGACCTG AACTTATGCT TTTTACGTT CTAAAGACT GTTTTACTC AAAAAACAGT	1380
TGAACAACCT CAACCACCTC TTATAAGAAC TTTTACTAT TCGAGAATCT CTTCAAACCA	1440

846

CGTCAGCTCT ATCTGCAACC TCAAAGCTGT GCTTTGAGCA ACCTGCGACT AGCTTCCTAG	1500
TTTGCTCTTT GATTTTCATT GAGTATTAAT TCTCCTTTTC CAACTCATAC AAATCTGCGA	1560
TAATAGCTGC GACATGTTTG ATATCTTCCA GCATGCCTCG CATTTCAAAG TCAGCCAATA	1620
CAGGGAAGCC AAAGCGTTGA CTGTATTGCT TGGCTGTTAG GCAGTATTGG TTATTAAAGT	1680
TACGATTTC TGACCCAACC ACACCAAAAC ACTTACTAGC ATTGTTACCA TAGGCAATAA	1740
AATCTCCAC CGGTGTCGTC AAAATCTCAA CATCTCCGTT ATCCACGCCA TTCCACCTT	1800
CGAGATAGGT CGGCAAAAAA GCGACATAGG GATGGTCCAT TTCATAGAAA TTTTGCCTT	1860
CCTTGACCAA ATCCTTGATA TGAATCTTTT GAACCTCAAT CCCTTTGTAC TGGGACAAGA	1920
GATAGTCTTT CAAGCGCGTC ACAAACCTTT CAGTGTGCCC ACTCAAGG	1968

## (2) INFORMATION FOR SEQ ID NO: 120:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7172 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 120:

CCGCATTTTT TATCACTAGA CTCGAGACAT CTTTTGAGTG GCTCTTGCTC TCTGGTTTAA	60
TTTTCTTCCT TGCTCAAGGA CTCCTGCTAT TTCTCTGGT CGTCCGACTC AAACATCAAT	120
TCGCTGAGAT TTATCCTCAA ATCAATAAAA AGATTGCTT CTAATATTA GGGGTTCTCA	180
CCATTGATTT TCTATTTTTT GTTCTCTTAG CCTTCATTAG TTCTCAGCGT TTTTCATCTC	240
TTATGCCAAT CATCACTGCT TGCCATTCTA CTTTTTATTA TATGACAGCT GACTACCTAA	300
GAGAAACTA TCCAGACTTT TACGACAAAC ACATCTCTTT ATGGGAGTGT CTCTAAAGAA	360
AAGGAGGTTT TAGCATGAAA AAAATCATCT TCATCAAAAC CATTCAACTC CTGTTCATTG	420
ATGGAATCAT GCTGGCATT TTTGACATTA AAAGGGGGCT TACTTGGGAC TGGATTTTGA	480
TTTATAGCGG TTGGCTCATT TTCTTTCATC CTGTGCTATT GACCTATCTT TCAAACCAAC	540
TTTGTGACCA CTTTAGTTAA CTCTATTCCC AGATTAGACC GAGATTCTGG CGTTTGTCTT	600
TACAAATTCT CCTATGGGAT AGCCTGATGA TTCTCTCCTT GGTGTCTTTA AGTGATATTC	660
CACTTTTCCT TCAGGGAAC CTCCTCATCC TAGGACATCT CATCCCTTCC TATCGCATCT	720
GCCAAAGCCT GAAAAGAGAC TTCCCCAAG CATATCAAGA ACCGATTCTT TTTTGGAGTA	780
TTTTATGATA GATGAGAAAG ACCAAGCCGA CTGGGCTTGG TCTTTCCTAT CTCTTTTATG	840
TATCTAGGAT AATGGTAACA GGTCCATTAT TAACCAGCTC AACCTGCATA TCTGCTCCAA	900

847

AGATGCCTGT CTGAACGGGC ACTTCTTGCG CTAATTTTGT ATTGAAAGCA TCATAGAAGT	960
CTGATGCCAT ATCAGGTTTA GCTGCCCCTG TAAAGgCTGG ACGATTGCCT CTCTTAGTAT	1020
CCGCAAAGAG GGTAAACTGA GAAATAGAGA GGATTTCTCC TTCAATATCT TTGACAGACA	1080
GGTTCATCTT GCCTTCTGCG TCTGAAAAA TCCGCATATT GACCAGTTT CTCACAGCAT	1140
AGTCCAAATC TTCCTCTTGG TCCTCTGGTC CAACACCAAC CAGCAATAAA AGTCCCTGAT	1200
TGATTTTTC CTGAATCTGG CCTTCTATAC TCACTTGGGC TTTTSTAACC CGTTGGATAA	1260
TGATTTTCAT AATAGCCTT CTAGTAAGAG CTAGGACAAC TAGCCGTTGG TCCGTTTGAC	1320
AGAGTAAACT TCTGGCACAC TCTTAATTT ATCGACAACC GTGGTCAGTG TAGAGAGGTT	1380
GGCAATACCG AAGgACACAT GGATATTAGC AACTTCATA TCCTTGGTTG GTTGGGCATT	1440
GACCGTTGAA ATATTCTTGG TTGTATTGA AAGAACTTGC AGTACATCGT TCAACAGTCC	1500
TGTACGGTTG AGACCGTAGA TATCGATATG GGCCATATAC TCCTTATTG AGCTAGGGTA	1560
CTGGTCTTCC CATTCACAT CAAGGAGACG TTGCTCGTAG TTTTCTTGGG CACGCAGGTT	1620
CATACAGTCC ACACGGTGAA TAGCCACACC ACGACCCTG GTAATGTAGC CAACAATATC	1680
GTCACCAGGC ACGGGGTAC AACACTTAGC AATCCGCACT AGGAGACCAG AAGCACCTTC	1740
AATAACCACT CCCCCCTCAT GCTTGACCTT GAGGGTTTCT TTATTTTCAA CCTTGACCTC	1800
GCCACCTTTG ACAAGCTCCT CTGCCTCAGC TTGGCCTTG GCACGCTCTT CCTCACGGCG	1860
TTCTTTTCA GTCAGACGGT TAAAGACGGT AATCGCACCG ATTTCCCCAA AACCAATGGC	1920
CGCAAAGAGG GAGTCTTCTG TCTGTAACT GGTCTTTTGC AGAACTTGAT CCATGTGGCG	1980
CTTGTCATA AATTTATTG CCACATAGCC ATTTTCTTGG AACTGAGCCA TCAGCATCTC	2040
ACGACCCTTG TTGACAGACA ATTCCTTATC TTGGTTTTTA AAGAACTGGC GAATCTTATT	2100
GCGGCCTTG CTAGTCTTGA CCATATTGAG CCAGTCACGG CTAGGTCCAA AGGAGTTCGG	2160
GTTGGCGATA ATTTCAACCT GATCCCCTGT CTTAACCTG GTTGTCACTG GAACCATGCG	2220
GCCATTGACC TTGGCACCAG TGCTTTTTC ACCGACCTTG GTATGGATTT CGTAGGCAAA	2280
ATCAATCGGT CCTGAATCTT TGGGAAGGGA ACGGACAGCT CCATCTGGGG TAAAAACGTA	2340
AATCTCCTCA GCCAAATAGT TTTCTTAAC AGAGTCCACA AATTCCTTAG CATCATCAGC	2400
CTGGTCTTGG AGCTCCATCA TCTCCTTGAT CCAGTTCATT CCAATAGCTG ATTCCTTGCT	2460
GTAACTTGC CCCTTTATAC CTTTCTTATA AGCCAGTGA GCCGCAACCC CGTACTCAGC	2520
CACCTCGTGC ATTTCTTGG TTCGAATCTG GAATTCATC GGCCCTTTTG GTCCATAAAC	2580
AGTCGTATGG ATAGACTGAT AACCATTGGC CTGCGGTTG GCGATATAGT CTTTGAAGCG	2640

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ACCTGGCATC GGTTCCTAAA ATTCATGCAC GTAACCAAGC ATGGCATAAA CATCACTTTG	2700
GGTATCTAAA ATACAACGAA TAGCAATCAG ATCATAGATT TCCTCAAACC GTTTCTCTTT	2760
GTCCTGCATT TTGCGGAAAA TTGAGTAAAT ATGCTTGGGA CGACCATAAA TCTTCCCTTT	2820
CAAGTGACGT TCTGTCGTAT ACTCCTCTAA TTTGTGACT ACCTCATCCA CCAAGGCCTC	2880
ACGCTCCCTG CGCTTTTCCT TCATCATATG GGTAATCTTG TAAACTCCG TTGGATTGAG	2940
ATAACGGAAA GACAAGTCTT CTAATCCCA TTTGACACTG GAAATCCCCA AACGATGGGC	3000
AAGCGGGGCA TAGATTTCCA TGGTTTCTTT GGAAATACGC TCCTGCTTGT CTTTTCGAAG	3060
ATGTTTCAGG GTCCGCATAT TGTGCAAGCG GTCAGACAGT TTGACCAAAA TAACGCGGAT	3120
GTCCTCAGAC ATGGCCATGA GCATCTTGCG ATGATTTTCC GCTAATTGCT CCTCGATCGA	3180
TTTGTACTCG ACCTTGCCAA GCTTGGTAAC TCCGTCAACA ATCATCCGCA CATCAGGACC	3240
AAACTCTCTT TCCAAATCGT CCAAAGTCGC ATCTGTATCT TCCACCACAT CATGCAAGAA	3300
TCCACAAGCT ACTGTTACAG CATCCAGCTT TAGCTTAGCT AAAATACCTG CCACTTGGAT	3360
AGGGTGAATG ATATAAGGCT CGCCTGATTT GCGATATTGA CCACTGTGGC ATTCAACAGC	3420
ATAGACCAAG GCCTTATGGA CAAAATGAAC ATCCTCTTCC GTTAAATATT CTTTGGTTAA	3480
AGCGACAAC TCTTCGCCTG TTAAATTAC TTCTTTCGGC ATCTCTACTC TCCAATTCTT	3540
CCTACCATTT TATCACTTTT TTAAGAATAT GAAACTAGA TTGGAACAGA ATAAGAAAAA	3600
AATAATTCAA AATTGCTTGA TAATTCTGAA TTATTGGTCC GTAATATACT ACGAAGTTAG	3660
ATTTTAAACT TAGGTGATAG AAGGAGAGAT AGAAGAACGG AAACCATATT GTAACCCAAA	3720
GACTTTCTGA CTTCCTCAAT TCCATTGAAG ATACGAAAGA TAAACGGTGG AACTCGTATC	3780
ACATACACTG GTACCTTGAC TGGATTTTGG AATTAATACT AAATGAAAAT CAAAGAGCAA	3840
ACTAGGAAAC TAGCCGCAGG TTAATCAAAG CACCGCTTTG AGGTTGCAGA TAAAGTTGAC	3900
GCGGTTTGAA GAGATTTTGG AAGAGTATAA AAATCCTCAA GATACTTTCT TCTATCCTTT	3960
AGTTTATAAG GAGAATACCT ATGAAAAAAA CTGCTATTTC TATCTTTGCT CTCCTAATGT	4020
TAGGAGTTTG CTGCCTGTTC CTATTCAGCC AGCAAAGCTA TAAAAACAG TCGTTCAATA	4080
CTATGCTAAC GACCAGAACC TGCCAGTAG GATAACTTAT AGTGAATATA GCGACAAATG	4140
AGAAGCCAAC TACGGTAGCA CTCTAAACAT CACGTCTATC AAACAAGCTA ATGACGGAGT	4200
TTATGCAACC TATGAAGGGC AATTGACACC TTTCCAATAT TGATAAATG ATAACCAGCC	4260
TGTCTTCATC TAGTCATGCT GGTTTTTAAG TTCATTTTAA ATCCTTACCT ATTCTCCCTA	4320
ACTGTGCTAT ACTTAATTTA TACTCAATGA AAATCAAAGA GCAAACTAGA AAGCTAGCCG	4380
CAGGCTGTTC AAAGCACTGC TTTGAGGTTG CAGATAAAGT TGACGCGGTT TGAAGAGATT	4440



TTCGAAGAGT	ATTAGTACAT	TCTTTGAGAT	TGGAGCTAGT	ATGAAAATCC	ATAAAACCGT	4500
GAATCCTGTT	GCCTATGAAA	ATACCTATTA	TCTAGAAGGC	GAAAAGCACC	TCATCGTCGT	4560
CGATCCTGGT	AGTCATTGGG	AAGCCATTCT	TCAGACAATC	GAGAAGATCA	ACAAACCGAT	4620
CTGTGCTATT	CTCTTGACCC	ACGCCCATTA	TGACCATATC	ATGAGTCTGG	ACTTGGTTCG	4680
CGAGACGTTT	GGCAATCCCT	CTGTCTATAT	CGCAGAGAGC	GAAGCCAGCT	GGCTCTACAC	4740
TCCTGTCGAT	AATCTCTCCG	GTCTCCCTCG	CCACGATGAT	ATGGCAGATG	TGGTCACAAA	4800
ACCTGCAGAA	CACACCTTTG	TCTTTCACGA	AGAATACCAA	CTAGAGGAAT	TTCGTTTTAA	4860
GGTTCTACCG	ACCCAGGGC	ACTCTATCGG	TGGTGTTCCT	CTAGTCTTTC	CTGATGCTCA	4920
TCTAGTCTTG	ACGGGAGATG	CTCTATTCCG	CGAACTATC	GGACGGACCG	ACCTTCCGAC	4980
TGGTAGCATG	GAGCAACTCC	TTCATAGTAT	CCAGACCCAA	CTCTTCACCC	TACCAAACCTA	5040
CGATGTCTAT	CCAGGACATG	GTCCAGCTAC	TACTATCGCT	CACGAAAAGG	CCTTCAATCC	5100
CTTTTCTTAG	CAAGATGATG	ACAATCGAAA	TTTAAGTAAA	CTATCCAGCA	AATCTTTCTA	5160
TTACAAAAGG	CATCCTATCA	AGGTTTTCAC	ACATGATTGG	ATGCCTTTTT	TCTGATGACT	5220
AGATTTTTTG	CATTACCAAA	TAATCACGCG	CTCCTCTGGT	GAACGCCACA	TTCCGTCTCC	5280
TTCTTTGACA	TCATAGGTTG	TAAAGAAATC	GTCTGAAGTT	GGTACTTGCA	CATTGACACG	5340
GAGTTTGGCT	GGTGCGTGCA	CATCGACGCT	AGCCAAAAGT	TTCATAAATT	CTGGTCGACC	5400
TTTCATGCGC	CAGATGCGAC	CGAAGTTGTA	GAAGAACTCT	TCTGCTGAGA	AGTCTGCTTC	5460
TCTCTTAGCT	GCTTCAAGCG	CTGCTGCGAT	TCCTCCCAAG	TCAGCCACGT	TTTCTGATAC	5520
AGTCAATTTA	CCGTTAATGG	TTGCTCCATA	AGAATCCTGT	CCATCAAATT	GGTCAATGAC	5580
TTTTTGTGTT	TTCTCCTTGA	AGGCAGCATA	GTGCTCTCTT	GTCCACCAAT	CCTTGAGGCT	5640
ACCATTTTTC	TCAAAGGAAG	CCCCGTTAGT	ATCAAAGGCG	TGGGAAATTT	CATGGGCAAT	5700
CACTGCCCCA	ATACCACCGT	AGTTAGCAGA	AGATGACTGA	TGCAAGTCAT	AGAAAGGCGC	5760
CTGTAAAATG	GCCGCTGGAA	AGACAATCAG	GTCTTCTTGA	GGATTGTAGT	AGGCATTGAC	5820
CATATGAGCA	GGCATGCCCC	ATTCCCTTATA	ATCTACAGGC	TGGTTCCACT	TACTCCAACCT	5880
GTGCTTGATT	TCCACACGCG	CAAAGGCTAG	AGCATTTCTCA	AAAAGACTGG	CAGTTTCATT	5940
CACTACCTTA	TCCTTGTAAC	GTGCAGGCAA	TTCTTCTGGA	TAGCCAATAT	AAGGTTTGAT	6000
CACATTGAGC	TTACGATAG	CCTGTTTACA	GGTTTCTGGA	GTGAGCCAGT	CATTCTTAAG	6060
CAGACGCTCC	TTATAAACAT	CAATCATGGT	TGCCACTTTT	TTCTCCACAT	CCGCCTTGGC	6120
TTCTGGAGAG	AACCTCTCAC	GGGCGTACCA	AAGACCCAGG	GCTTGCTTGA	AAGGTTCTTG	6180

850

TGCTAGATGA TAAGCTGCTT TGACCTTATC TTTTGCCTCT GGAAGTCCAG AAAGGGCACG	6240
GCTGTAGGCA CCAGACAAAA CACGGATATC CTCTGTTAAA TAGCTGGTTG AAAGATTGAC	6300
AACACTCAAA ATCAAGGTTG CTTTAAGGAG AGACCAGGCT TCCTCACTGT AGAATTGCTC	6360
TGCTGCTTGC CAGAAACGTT CCTCGTCTAC AATAACCTTG TCTGGTAATT GCCCAATAAC	6420
TGCTTTGAAG AAGTCATCCA AAGGTAGGGC AGGCGCGAAT TTCTTGAAAT CTTCGTAAGA	6480
ATATGGATGA TAGAGTTTAG CATATTCTGA ACTTTCTTCA TTAGAGAGCA CCACTGCCGC	6540
AACTCGGCGG TCCAATTCAA GTCTTTTTC TAGCAAGTCT TCAATTTCTT CATCAGAGAA	6600
ATCATAAGCC TTGAGGAGAT TTGCGCTGCT TTCTTTCCAA AGAGTCAAGA GCTCTTCGCG	6660
CTGAGGATGT TCTTCTGCAT AGTAGGTCGT ATCTGGCAAG ATTGTGCTTG GAGCGCTAGC	6720
CCATAGAACA TTGATTCTAG CATCCATAAA GTCTGGCGAT ACACCAAAAAG GAAGGAAGTT	6780
TGGTTTTCCT GCAAGCTCAA ACTCTGCTAG TTTAGCTGTA AAATCCGCAA AAGTCTCCAA	6840
TTCTTGGAAT TCTTTAAGGA GTGGTAAGAC AGGTGTGATA CCGTCAGCTT CTCTCTTGTC	6900
AAAATCACGA ACTAGGCGGT GGTATTTGAC AAAGTTTTC AAGATAGCAT CCTCAGGCAC	6960
TTCTTCACCT GCTAACCACT TGTCTGTTGT CGCCAGCATC AGGTCTTCAA TTTCTCTGTC	7020
TAAATCAACA AAACCTCCTG TTTGAGACTT ATCTGCTGGG ATTTTCAGCTG TCTGTTGCCA	7080
TTCTCCATTG ATAGCATCAT AAAAATCATC TTGATAACGT GTCATCTTGT TCTCGCTTTC	7140
ATTTGTATTT GCATTTATCT TAACAAAAAT CG	7172

(2) INFORMATION FOR SEQ ID NO: 121:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4518 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 121:

CGGGAAGTTA TGCGATCTAG ACTTCGTTCC TGTACAGCTA CTTTCTCAGG TGGTCTTGTT	60
GTTTGTATGA GTTTGTTTAG AGAGGATCTT TCTATGTCTT TCTTCTTAT TTTTGTTTTA	120
TATGCTTTTC TGATTTCTTA TCTAATTAT GGTATTTC AACTAAAAAG GAAATACCGA	180
GTAGATGAAT AGCAAGGTTT TAGGTCTTCA GATTGATTTT TAGCACTCTT GATAAAAGAG	240
TGCTAATTTT TTGAGTTTTT GTCTTGACAT TCTCTTCTAA GGGTGTATAA TAGAATCATG	300
AGTTAGCACT TGGATGCATT GAGTGCTAAT TGATCAGACA GAGAGGAGTG ATGAGATGGT	360
TACAGAGCGT CAGCAGGATA TTTTAAATCT GATTATTGAC ATCTTTACCA AAACGCACGA	420

851

ACCTGTCGGA	TCAAAAGCCT	TGCAAGAGTC	TATTAACCTCT	AGCAGTGCAA	CCATTCGTAA	480
TGACATGGCG	GAAC TAGAAA	AACAAGGTT	GCTTGAGAAG	GCTCATACTT	CAAGTGGTCG	540
GATGCCAAGT	GTTGCTGGTT	TTCAGTACTA	TGTGAAACAC	TCACTGGATT	TTGACCGGCT	600
GGCTGAAAAT	GAGGTATATG	AGATTGTCAA	AGCCTTTGAT	CAGGAATTCT	TCAAATTGGA	660
GGATATTCTG	CAAGAGGCTG	CTAACTTACT	AACAGACCTG	AGTGGCTGTA	CGGTAGTGGC	720
ACTGGATGTT	GAGCCGAGCA	GGCAACGTTT	GACAGCCTTT	GATATCGTTG	TTTTGGGGCA	780
ACATACAGCC	TTGGCGGTAT	TTACCCTAGA	CGAGTCGCGA	ACGGTTACTA	GTCAGTTTCT	840
GATTCCAAGG	AACTTCTTGC	AGGAGGATTT	GCTGAAACTG	AAGAGCATCA	TTCAGGAACG	900
TTTCCTCGGT	CACACCGTTT	TAGATATTCA	CTACAAGATT	CGGACGGAGA	TTCCGCAGAT	960
TATCCAGCGT	TACTTTACAA	CAACGGATAA	TGTCATCGAT	CTCTTTGAAC	ACATCTTTAA	1020
GGAAATGTTT	AACGAAAACA	TTGTGATGGC	GGGCAAGGTC	CATCTCTTGA	ATTTTGCCAA	1080
TCTAGCAGCC	TATCAGTTCT	TTGACCAACC	GCAAAGGTG	GCCTTGGAGA	TTCGTGAGGG	1140
GTTGCGTGAG	GATCAGATGC	AAAATGTTTC	TGTTGCAGAC	GGTCAAGAGT	CCTGTTTAGC	1200
TGACCTAGCG	GTAATCAGTA	GTAAGTTCCCT	CATTCCCTTAT	CGGGGAGTTG	GAATCTAGC	1260
CATTATCGGT	CCAGTTAATC	TGGATTACCA	ACAGCTAATC	AATCAAGTCA	ATGTGGTCAA	1320
CCGTGTTTTG	ACCATGAAGT	TGACAGATTT	TTACCGCTAC	CTCAGCAGTA	ATCATTACGA	1380
AGTACATTAA	GATTGAAATC	ATTAAAGGAG	GCGAACATGG	CCCAAGATAT	AAAAAATGAA	1440
GAAGTAGAAG	AAGTTCAAGA	AGAGGAAGTT	GTGAAAACAG	CTGAAGAAAC	AACTCCTGAA	1500
AAGTCTGAGT	TGGAAGTTGC	AAATGAACGT	GCAGATGAGT	TCGAAAACAA	ATATCTTCGC	1560
GCTCATGCAG	AAATGCAAAA	TATCCAACGC	CGTGCCAATG	AAGAACGTCA	AAACTTGCAA	1620
CGTTATCGTA	GCCAGGACTT	GGCAAAAGCA	ATCTTACCAT	CTCTTGACAA	CCTTGAGCGT	1680
GCACTTGCAAG	TTGAAGGTTT	GACAGATGAT	GTGAAGAAGG	GCTTGGGGAT	GGTGCAAGAA	1740
AGCTTGATTC	ACGCTTTGAA	AGAAGAAGGA	ATTGAAGAAA	TCGCAGCAGA	TGGCGAATTT	1800
GACCATAACT	ACCATATGGC	CATCCAAACT	CTCCAGCAG	ACGATGAACA	CCCAGTAGAT	1860
ACCATCGCTC	AAGTCTTTCA	AAAAGGCTAC	AAACTCCATG	ACCGCATCCT	ACGCCCAGCA	1920
ATGGTAGTGG	TGTATAACTA	AGATATAAAG	CCCGTAAAAA	GCTCGCAGTA	AAAATAGGAG	1980
ATTGACGAAG	TGTTTCGATGA	ACACAAGAAA	ATCTATCTTT	TTTACTCAGA	GCTTAGGGCG	2040
TGTTTCGATTC	GGCAATTCTG	ACGGTAGCTA	AAGCAACTCG	TCAGAAAACG	GCAATCGCTA	2100
TGGCGTTTGC	CTAGCTTCCT	TACTAACTCG	TCGTCGAAAT	AAAATCGATT	TCGACTCCTC	2160

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GTGTCGCAAT	TTACATAATA	GAAAACCTTGT	CCGAAACGAC	AATAAACTAT	GAAGAAAGAT	2220
AAAATATGTT	TGGCTTTGTA	ATAGTGAGCG	AAGCGAACCA	AACACGATAC	TCTTCGCCGT	2280
GGCGCTATTT	GCGCAAATTT	TGAGACCTTA	GGCTCAAAGT	TTAGTCAAAG	AGATTGACGA	2340
AGTCAAGCTC	TGACGGCGTC	GCCACTGTCTG	CCACTTAAGA	AGAGTATCAA	AAAGAAAAAT	2400
AGAAAATTAA	CTAACAAAGGA	GAAAAACACA	TGTCTAAAAT	TATCGGTATT	GACTTAGGTA	2460
CAACAAACTC	AGCAGTTGCA	GTTCTTGAAG	GAAGTAAAG	CAAAATCATC	GCAAACCCAG	2520
AAGGAAACCG	CACAACTCCA	TCTGTAGTCT	CATTCAAAAA	CGGAGAAATC	ATCGTTGGTG	2580
ATGCTGCAAA	ACGTCAAGCA	GTTACAAACC	CAGATACAGT	TATCTCTATC	AAATCTAAGA	2640
TGGGAACTTC	TGAAAAAGTT	TCTGCAAATG	GAAAAGAATA	CACTCCACAA	GAAATCTCAG	2700
CTATGATCCT	TCAATACTTG	AAAGGCTACG	CTGAAGACTA	CCTTGGTGAG	AAAGTAACCA	2760
AAGCTGTTAT	CACAGTTCCG	GCTTACTTCA	ACGACGCTCA	ACGTCAAGCA	ACAAAAGACG	2820
CTGGTAAAAAT	TGCTGGTCTT	GAAGTAGAAC	GTATTGTTAA	CGAACCAACT	GCAGCAGCTC	2880
TTGCTTATGG	TTTGGACAAG	ACTGACAAAG	AAGAAAAAAT	CTTGGTATTT	GACCTTGGTG	2940
GTGGTACATT	CGACGTCTCT	ATCCTTGAAT	TGGGTGACGG	TGTCTTCGAC	GTATTGTCAA	3000
CTGCAGGGGA	CAACAAACTT	GGTGGTGACG	ACTTTGACCA	AAAAATCATT	GACCACTTGG	3060
TAGCAGAATT	CAAGAAAGAA	AACGGTATCG	ACTTGCTCTAC	TGACAAGATG	GCAATGCAAC	3120
GTTTGAAAGA	TGCGGCTGAA	AAAGCGAAGA	AAGACCTTTC	TGGTGTAAC	TCAACACAAA	3180
TCAGCTTGCC	ATTTATCACT	GCAGGTGAGG	CTGGACCTCT	TCACCTGGAA	ATGACTTTGA	3240
CTCGTGCGAA	ATTTGACGAT	TTGACTCGTG	ACCTTGTTGA	ACGTACAAAA	GTTCCAGTTC	3300
GTCAAGCCCT	TTCAGATGCA	GGTTTGAGCT	TGTCAGAAAT	CGACGAAGTT	ATCCTTGTTG	3360
GTGGTTC AAC	TCGTATCCCT	GCCGTTGTTG	AAGCTGTTAA	AGCTGAAACT	GGTAAAGAAC	3420
CAACAAATC	AGTAAACCCT	GATGAAGTAG	TTGCTATGGG	TGCGGCTATC	CAAGGTGGTG	3480
TGATTACTGG	TGATGTCAAG	GACGTTGTCC	TTCTTGATGT	AACGCCATTG	TCACCTGGTA	3540
TCGAAACAAT	GGGTGGAGTA	TTTACAAAAC	TTATCGATCG	CAACACTACA	ATCCCAACAT	3600
CTAAATCACA	AGTCTTCTCA	ACAGCAGCAG	ACAACCAACC	AGCCGTTGAT	ATCCACGTTT	3660
TTCAAGGTGA	ACGCCCAATG	GCAGCAGATA	ACAAGACTCT	TGGACGCTTC	CAATTGACTG	3720
ATATCCCAGC	TGCACCTCGT	GGAATTCCTC	AAATCGAAGT	AACATTTGAC	ATCGACAAGA	3780
ACGGTATCGT	GTCTGTAAAG	GCCAAAGACC	TTGGAAGTCA	AAAAGAACAA	ACTATTGTCA	3840
TCCAATCGAA	CTCAGGTTTG	ACTGACGAAG	AAATCGACCG	CATGATGAAA	GATGCAGAAG	3900
CAAACGCTGA	AGCCGATAAG	AAACGTAAAG	AAGAAGTAGA	CCTTCGTAAT	GAAGTAGACC	3960

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AAGCAATCTT TGC GACTGAA AAGACAATCA AGGAAACTGA AGGTAAAGGC TTCGACGCAG 4020  
 AACGTGACGC TGCCCAAGCT GCCCTTGATG ACCTTAAGAA AGCTCAAGAA GACAACAAC 4080  
 TGGACGACAT GAAAACAAAA CTTGAAGCAT TGAACGAAAA AGCTCAAGGA CTTGCTGTTA 4140  
 AACTCTACGA ACAAGCCGCA GCAGCGCAAC AAGCTCAAGA AGGAGCAGAA GGCGCACAAG 4200  
 CAACAGGGAA CGCAGGCGAT GACGTCGTAG ACGGAGAGTT TACGAAAAAG TAAGATGAGT 4260  
 GTATTGGATG AAGAGTATCT AAAAAATACA CGAAAAGTTT ATAATGATTT TTGTAATCAA 4320  
 GCTGATAACT ATAGAACATC AAAAGATTTT ATTGATAATA TTCCAATAGA ATATTTAGCT 4380  
 AGATATAGAG AATTATATTA GCTGAACATG ATAGTTGTAT CAAAAATGAT GAAGCGGTAA 4440  
 GGAATTTTGT TACCTCAGTA TTGTTGTCTG CATTTGTATC GGCGATGGTA CCGTATCTGA 4500  
 CGAACGTTCA GCTTATAT 4518

(2) INFORMATION FOR SEQ ID NO: 122:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8145 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 122:

TGCTATTTTC GATTCCCTTG GCGTTTTGA TTGCCTTTGC CTTGCAAGTC CATTGGAAGC 60  
 CCCTCCATTA TCTGATTAAC ATTTACATCT GGGTTATGCG AGGAACCCCC TTA CTCTTG C 120  
 AACTGATTTT TATCTATTAT GTGCTCCCAA GTATTGGGAT TCGTTTAGAC CGCCTTCCTG 180  
 CAGCTATTAT TGCTTTTGTT CTCAACTATG CAGCTTACTT TGCAGAAATT TTCCGTGGGG 240  
 GAATTGACAC TATTCCAAGA GGACAGTATG AGGCCGCCAA GGTCTTGAAG TTTAGCCCTT 300  
 TTGACAGAGT GCGCTATATT ATCTTGCCCC AAGTGACCAA GATCGTTCTT CCTAGTGTCT 360  
 TTAATGAAGT TATGAGTTTG GTCAAGGATA CTTCTTTGGT CTATGCTCTC GGAATTTTCA G 420  
 ACCTTATCTT GGCTAGTCCA ACAGCTGCTA ACCGCGATGC TAGTCTAGTT CCTATGTTCT 480  
 TGGCAGGAGC CATTTATTTG ATTTTGATTG GGATTGTGAC AATTATTTCC AAAAAAGTTG 540  
 AGAAGAAGTA TAGTTATTAT AGATAGGAGG CTGCCATGTT AGAATTACGA AATATCAATA 600  
 AAGTCTTTGG AGACAAACAA ATCCTGTCTA ATTCAGTCT AAGTATTCCT GAAAAGCAAA 660  
 TCCTGGCTAT CGTTGGACCT TCTGGTGGAG GTAAGACAAC TCTTTTACGT ATGCTTGCAG 720  
 GTCTTGAAAC CATTGATCA GGGCAAATCT TTTATAATGG ACAACCTTTA GAGCTGGATG 780

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AATTGCAGAA GCGCAATCTA CTGGGATTTG TCTTCCAAGA TTTTCAACTA TTTCTCATC	840
TATCAGTTCT GGAAAATTTG ACTTTATCGC CTGTGAAGAC CATGGGAATG AAGCAGGAAG	900
AGGCTGAGAA GAAGGCGAGT GGACTCTTGG AACAGTTAGG ACTAGGAGGA CACGCAGAGG	960
CCTATCCTTT CTCACTATCT GGTGGGCAAA AGCAGCGGGT GGCTTTGGCG CGTGCTATGA	1020
TGATTGACCC AGAAATCATT GGCTACGATG AACCAACTTC TGCCCTGGAT CCAGAATTAC	1080
GTTTGGAAGT GGAGAAGCTA ATCTTGCAAA ATAGGGAAC TGGGATGACC CAGATTGTGG	1140
TTACCCATGA TTTGCAGTTT GCTGAAAATA TCGCAGATGT ATTATTGAAA GTAGAACCCTA	1200
AATAGGAGGA AAAATGGATG AAAAAATGGA TGCTTGTATT AGTCAGTCTG ATGACTGCTT	1260
TGTTCTTAGT AGCTTGTGGG AAAAATCTA GCGAAACTAG TGGAGATAAT TGGTCAAAGT	1320
ACCAGTCTAA CAAGTCTATT ACTATTGGAT TTGATAGTAC TTTTGTCCA ATGGGATTTG	1380
CTCAGAAAGA TGGTTCTTAT GCAGGATTTG ATATTGATTT AGCTACAGCT GTTTTGGAAA	1440
AATACGGAAT CACGGTAAAT TGGCAACCGA TTGATTGGGA TTTGAAAGAA GCTGAATTGA	1500
CAAAGGAAC GATTGATCTG ATTTGGAATG GCTATCCGC TACAGACGAA CGCCGTGAAA	1560
AGGTGGCTTT CAGTAACTCA TATATGAAGA ATGAGCAGGT ATTGGTTACG AAGAAATCAT	1620
CTGGTATCAC GACTGCAAAG GATATGACTG GAAAGACATT AGGAGCTCAA GCTGGTTCAT	1680
CTGGTTATGC GGACTTTGAA GCAAATCCAG AAATTTTGAA GAATATTGTC GCTAATAAGG	1740
AAGCGAATCA ATACCAAACC TTTAATGAAG CCTTGATTGA TTTGAAAAAC GATCGAATTG	1800
ATGGTCTATT GATTGACCGT GTCTATGCAA ACTATTATTT AGAAGCAGAA GGTGTTTAA	1860
ACGATTATAA TGTCTTTACA GTTGGACTAG AAACAGAAGC TTTTGCGGTT GGAGCCCGTA	1920
AGGAAGATAC AAAGTTGGTT AAGAAGATAA ATGAAGCTTT TTCTAGTCTT TACAAGGACG	1980
GCAAGTTCCA AGAAATCAGC CAAAAATGGT TTGGAGAAGA TGTAGCAACC AAAGAAGTAA	2040
AAGAAGGACA GTAAGATAAA ATAGTGGCTG AAAGTGCCTT TTGATTAGCA AAACGTAGTT	2100
TTTTTTGTAA TCTAGGAAAA CGATAATAGC GATTGAATAT GGATAATTGA ATATGGAATA	2160
GCCCACTGTG ATTTCTAAAA CATTTGTTAA AATTGATTTG ACTTCCAAAA TTAAAATGTT	2220
CTGTAATGAA ATACTGATGT AACTGTTTTA GGAACAATAA AACGCATAAT ATCAAGGTTT	2280
TTGCACCTTA CATTATGCGT TTTTGTGATT TTAAGACTTG TTAGCTGATT TTTTACAATC	2340
CTGCAGAAATC TTTGATTTCT TGTGCTGACA TTGAAGAGTC GCAACGGACG TTGATTGTGC	2400
CATCTGTAAT ATGAACAAAA CCTGGTACAG TTGGGATTCC ATAGCGTGAG CGGAATGCTT	2460
GCAAATCATT GAGTTGGCTT GGTCTTCAC TATTGATGAA GTAAATGTGA GCTTTGGTTT	2520
CAGCTACGAC ACCTGACAA GTACCTGCAA ATTTACGGCA GTAAGGGCAA GTTTTGCGAC	2580

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CGATAAAGAA	GGTTGCAGTT	TCTTTTAT	CAAGAGCTTC	TTGCGCACGC	ACAACTGTAG	2640
TGACTTCAAG	GTCTTTGATG	TTATCTAAAA	ATTGTTCCAT	GAGATTACCT	CGCTTTCATT	2700
GATAAGTCTA	GTATGCCATA	AAGTTTCTAA	AATTGCTTAG	ATTTGATACG	AAAAAAGATG	2760
AGGTTGGTTG	GTCTCATCTT	TTATAGGTCT	TTATTTTACA	AATGCATTGA	TTTCTGCTTC	2820
GATGTTAGCA	ATCTTAGCTT	GTGATTCTTC	GTTGGTTTCC	CCTACAACTG	CAATGTAGAA	2880
CTTGATTTTT	GGTCTGTAC	CTGAAGGGCG	AACGGCAATC	CATGAACCGT	CAGCAAGTGT	2940
GTATTTCAAC	ACATCACTTG	GAGGAGTTGT	CAAGTTTGTA	ACAGTACCGT	CAGCAACAGT	3000
AGCAGTTTGT	GCCTTGAAGT	CTTCTACGAC	AGTGATAGCT	GTTGCGTTCC	ATTCTGTTGG	3060
AGCATTGTTG	CGGAATTTAG	CCATAATCGC	TTTGATTTGT	TCAGCACCAT	CGACACCTGA	3120
AAGAGTAACA	GAGATTGTTT	TTTCTGCGTA	GTAGCCATAT	TCTTTATAGA	TTTCTTCGAT	3180
ACCGTCAGCA	AGTGTCAAAC	CACGAGAACG	GTAGTAGGCA	GCAAGTTCAG	CAACTACAAG	3240
AACGGCTTGG	ATGGCATCTT	TATCACGTAC	AAATGGTTTA	ATCAAGTAAC	CGAAGCTTTC	3300
TTCAAATCCC	ATCATGTAAG	TGTGGTTGTG	TTTTTCTTCG	AATCTCTGGA	TTTTTTCAGC	3360
GATAAATTTG	AAACCTGTCA	AGACGTTGAA	CATAGTTGCG	CCGTAGCTTT	CAGCAATCTT	3420
CGTTACCAAG	TCAGTTGAAA	CGATAGATTT	GCAGAGAGCG	GCATTTTCAG	GAAGAGTTCC	3480
AGCGTTTTTG	TGAGCTTCCA	AGATGTATTT	AGCCATGATA	GCACCGATTT	GGTTACCTGA	3540
AAGGTTGAGG	TAGCTACCAT	CTTTTGAAG	AAC TTCAACA	CCAACACGGT	CAGCGTCTGG	3600
GTCAGTTGCG	ACAAGAACAT	CTGCACCAAC	TTGACGACCA	AGTTCTTCAG	CAAGGGCAAA	3660
GGCTGCTTGG	CTTCTGGGT	TTGGAGATGT	TACAGTTGAA	AAGTCTGGGT	CAGCAGTTGC	3720
TTGCGCTTCA	ACAACTTGAA	CAGAGTCAAA	TCCTGCTTGG	GCAAGAGCAC	GACGAGCCAA	3780
CATTTACCA	GTACCATGAA	GTGGTGTGTA	GACAATCTTC	ATGTCTTTAC	CAAATTCTTC	3840
AATCAAGGCT	GGGTTGATGT	TTATGTCCTT	AACCTCTTTA	AGGTATTCTA	TGTCAACAGC	3900
TTCGCCGATA	ACTTCAATCA	AGCCAGAAGC	TTTTTCAGTT	TCCACATCAG	CAACTTCAAC	3960
TGCAAATGGG	TTTTCGATTG	CACGGATATA	AGTAGTCAAA	GCGTCCGCAT	CGTGTGGAGG	4020
CATTTGTCCA	CCGTCTTCAC	CGTAAACCTT	GTAACCGTTA	AATGGAGCAG	GGTTGTGGCT	4080
GGCTGTGACC	ATGATACCTG	CGAAACAGTT	GAGATGACGA	ACTGCAAATG	ATAGTTCTGG	4140
AGTCGGACGA	AGGCTTTCAA	ATACGTAAGA	TTTGATGCCG	TGTTTAGCAA	GAAGTCCGC	4200
AGATTCAAAG	GCAAACTCAG	GTGAGAAGTG	ACGGCTATCG	TAGGCAATTG	CTACACCGCG	4260
TTCTTTCTCG	TTTCCACCTT	TTGACTCAAT	CAAACGAGCC	AATCCTTCAG	TAGCTTGGCG	4320

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AACAACGTA	ATGTTGATAC	GGTTTGTACC	AGCACCAACC	AAGCCACGCA	TACCTGCAGT	4380
ACCAAATTCA	AGATTTGTAT	AGAAGGCATC	TTCCTTAGTT	TTTTCGTCCA	TATTTTCCAA	4440
ATCTTGACGA	AGGTAGTCAC	GAAGCTCCAC	AAAATCAACC	CATTCTCGGT	AATTTTCTTG	4500
GTAAGACATT	CAAATCTCC	TTTATTTTTA	AAACATTTAA	TCAGTTTAAT	TATATCATTT	4560
TTTTTAGTTT	TAGTAAAACC	TTATCTGCTT	CGAACATCTC	TTCAAACCAG	GTCAGATTGA	4620
ATTTTGGGGT	TATATGATGT	TGAGGCTAGG	AAAAATTCAA	TTTCAGTAAA	AAAAGTAAGT	4680
CTTCTCATAA	CAAACATTG	ATATAGTTAC	TTAGTTTTAA	ACAAGCATAT	TATAATAAAG	4740
CTATGGCATA	TAGTACTGAT	TTTAAACAGC	GAGCATTAGA	TTACATCAAA	GAGGGGCACA	4800
GCCATGTCTGA	GGCAGCCAAG	TTTTTTGGTG	TTGGCGTCAG	AACTCTCTTC	ACGTGGGAAA	4860
AGAAAGACGT	GAACAAGAAC	ACATAGAGAG	GAAAAAGCGA	GTCGTCAAAA	ACCGAAAGAT	4920
TCCTTTAGAG	GAATTGAAAG	CCTTTGTAGA	GGCTCATCCA	GATGCTTTTT	TACGGGAAAT	4980
TGCGGCACAT	TTTGATTGTG	CTGTTCTTTC	AGTATGGGCA	GCTTTAAAGC	AGATTAAGGT	5040
CACCTTAAAA	AAAGATGACG	AGCTTTAAGG	AACAAGACCC	AGAAAAGTAG	CCTTATTTCT	5100
TAAGAATTTT	AATAGTTTAA	AGCACCTAGC	ACCTGTTTAT	ATTGATGAAA	CAGGAATCGA	5160
CCGCTATCTC	TATCGTCCTT	ATGCAGGGGC	TCCTAGAGGG	GAGAAAGTCT	ATGAAAAGAT	5220
TAGCGGACGT	CGTTTTGAGC	GAAC TTCAAT	TGTTGCAGGA	CAAGTAGACG	GAGAGTTTAT	5280
AGCTCCCATG	ATTTACAAGA	AAAGCATGAC	AAGCGATTTC	TTTGTGGAGT	GGTTCAAAAC	5340
GCAACTCCTA	CCTGCTTTGA	AGACACCTCA	TGTTATTGTC	ATGGGCAATG	CTGGTTTCA	5400
TCCCAAGAAC	ATTTTGGATG	AACTCTGCAT	CCAAGATAAA	CAC TTTTCT	TACCTCTACC	5460
ACCTTATTCA	CCGGATTGTA	ATCCTATTGA	GCAAGCTTGG	GCTATCTTGA	AAAAGAAAGT	5520
GACGGATGTA	TTAAGGGAAG	TTCCAAC TAT	TTTTGAATGT	TTGGAATGCT	TTTTTAAAAC	5580
TAGATGACTA	TAACGGTTCT	AAAGGAACCT	ATCGAGTAGT	CATTAAAAC T	AAGGATACTG	5640
CTGGTTAAGA	GAAGACGGTA	TACAATCAAA	CCATTACCGG	TGTAGCCGAA	ATCGTTCAGA	5700
ATGAAGACTT	GTATCAGAAT	GAAGACTTGT	ATAAGAAAGG	TTTGAATGTT	GAAC TTGCGC	5760
ACCAACAAAT	TAAGGGATTT	TTTGAAGCAG	AGTTTAAAAA	TCGTATTAAT	GGAGTTCTTA	5820
ATACTAAAAAT	AAAAAATAGT	ACATTAAATC	GTGTAAATAA	AAAAACTATA	CACCAGAGCA	5880
ACAAAAACTC	CATGATCAAT	TTGAAGCAGA	AGCAACGGAA	GATGCTAAAA	AACAAGGCGA	5940
TATTGTGTTG	AATGTTGACC	AGGATTTTAT	GAGCATATCT	AAGTCTAATA	AAAGTGGTTC	6000
AGACTGGAAG	AAAAC TTTCA	CAGTGAGGAT	AACCAATAGG	CTAGCAAATG	ACTTGAATAA	6060
TGTCTTGAAA	CAGGTTGATA	AAGATACTCC	TAATACCCCA	ACTTGGCTAA	ACTCAGCTGC	6120



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TTCTAAAGCT AAAGATGATG ACAGAGTATA TAAACTACTG AAGACTCTTA TACCAGGAGA	6180
AAATTACCTA TCATGTTAAG GATAATCAGC TAGAAGTAGA AACAGATAAA TACACATATA	6240
CTGCCGCTAG AAATGGTAGT AAGGAAGTTG GTATTCAAGA GTCAGATATA GCAGCAACTC	6300
TAAGTGCCGA TGAATATAAT TCTAATCGCC AAACCTTTTGA GAGAGAATAC AAATACAAAA	6360
GCAAATGCCC TTAATAATGG TTGGGCTAGA TCTGGTTCTG AAGAGTTCAA AAAGTTCTCC	6420
CACTTTGTAG GGGTAGACAA AGGGATTGTG CGAACGAATG TACTGACTGG TAAAAACTA	6480
TCTGATAAGA TTAGGAAAGA AGTGGGCTCT GGAGATAGCA AACTAGGAAA AGGCGGCTAT	6540
TTCTCTACTG GGGATGTTCT ATTAGGAAAA GATGTTGTTT CTTATACCGT ACAAGTATTT	6600
TCAGAGAATA ATGAAAGAGT AGGAGTAAAC ACTCAAAGTC ACCGTGTTCA GTATAATCTC	6660
CCAATTCTAG CTGACTTTTC AGTCATCCAA GATACTGTGG AACCATCACG AACC GTTGT	6720
GAAAAAATCA TTCCAAAAC AAATATTCCT GAAGAAGAGA AAGGGAAAAA AACCGAAGAA	6780
ATCAAGAAAA AGAAAAAAC CTCAGAATTG GCAGAACTAA TCTCAGAAAA TGTGAAAGTT	6840
CGCTATGTTG ATGAACAAGG GCGTTTGCTA TCATTGAAAA ATGATACTGG AATTGGAGAA	6900
AAAGAAAGTG ACGGAACCTA CATTACCAAT AAAAAACAAC TGATTGGTAC CAGCTATAAT	6960
GTCACAGATA AAAAATCAG TAGCATGACT ACTACTGACG GAAAATATTA TACTTTTAAA	7020
GAAGCAGATA CAAATTCTGC AAGTTTAACT GGGAATATTG TAAGCGAAGG TAGAACAGTG	7080
ACCTTAGTTT ATAGAGAAAG CGAAGCGCCA ACCACTGCTA CAGTAACAGC CAATTACTAT	7140
AAAGAAGGTG GGCAAGAGAA GTTGGTAGAG TCTGTTATAA AAGCTGATTT AGCGATAGGT	7200
TCTGAGTATA CCACAGAATC AAAAATATT GAAGGGAAAA CAACAACTGA GGACAAAGAA	7260
GACCGAGTTA TCACAAGGAA AACAACATAC ACCTTGGTAG CAACTCCTGA AAATGCGTAC	7320
CAGAAGACGG TGCAACAGTT GACTATTACT ACCGTGAGAA TGTTGAGGAA ACAGTGGTTC	7380
CCAAAACAGC AACCTCTACT GAGACGAAGA CTATAACGCG TATCATTCAT TACGTTGATA	7440
AAGTTACGAA CCAAAATGTA AAAGAAGATG TTGTTCAACC TGTAACCTTA AGCCGTACAA	7500
AAACTGAGAA CAAGGTCACG GGAGTTGTAA CCTACGGTGA ATGGACAACA GGAAACTGGG	7560
ACGAGGTTAT ATCTGGTAAG ATTGACAAGT ACAAAGATCC AGATATTCCA ACAGTTGAAT	7620
CACAAGAAGT TACGTCAGAC TCTAGTGATA AAGAAATAAC GGTAAGGTAT GACCGTTTAT	7680
CAACACCAGA AAAACCAATC CCACAACCAA ATCCAGAGCA TCCAAGTGTT CCGACACCAA	7740
ACCCAGAACT ACCAAATCAA GAGACTCCAA CACCAGATAA ACCAACTCCA GAACCAGGTA	7800
CTCCAAAAAC TGAAACTCCA GTGAATCCAG ACCCAGAAGT TCCGACTTAT GAGACAGGTA	7860

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AGAGAGAGGA ATTGCCAAAC ACAGGTACAG AAGCTAATGC TACCTTGGCT AGTGCTGGTA	7920
TCATGACCTT GTTAGCTGGT CTAGGATTAG GATTTTTCAG GAAAAAGAA GATGAAAAAT	7980
AATAGATTTT AGAATCTAGG AACCAGGAAA AGCTCACAGA TGTGGGCTTT TTTCTGGTT	8040
TTGAGAACGA GGTCTTTCGT AAAGAATAAA AACGCTTACA AGTCTGTTGA ACTGGGAAAC	8100
TATGAATCCT ATTTTTTTAA AAATATTTCC AGAAATCAGT TGCGG	8145

(2) INFORMATION FOR SEQ ID NO: 123:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8697 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 123:

CGGTACCGGG AACGATACTT AGTCTAATTT TGCACCTTTT CCATGTATGG TAAAGGTTTT	60
TCTTTTTTTTA AAAAGGAAAA CGAGAAGAGG AGGTTCTTAT GAAAGCAAGC ATTGCCTTGC	120
AAGTTTTACC CCTAGTACAG GGGATTGATC GGATAGCTGT TATTGATCAG GTCATTGCTT	180
ATCTGCawAC TCAAGAAGTG ACGATGGTAG TGACACCATT TGAAACGGTC TTGGAAGGGG	240
AGTTTGATGA GCTTATGCGC ATTCTAAAAG AAGCGCTGGA AGTGGCAGGG CAGGAGGCAG	300
ACAATGTCTT TGCCAATGTC AAAATAAATG TAGGAGAGAT TTAAAGTATT GATGAGAAAC	360
TTGAGAAGTA TACTGAGACG ACACATTAGT CTATTGGGCT TTCTCGGAGT ATTGTCAATC	420
TGGCAGTTAG CAGGTTTTCT TAAACTTCTC CCCAAGTTTA TCCTGCCGAC ACCTCTTGAA	480
ATTCTCCAGC CCTTTGTTCG TGACAGAGAA TTTCTCTGGC ACCATAGCTG GGCGACCTTG	540
AGAGTGGCTT TACTGGGGCT GATTTTGGGA GTTTTGATTG CCTGTCTTAT GGCTGTGCTC	600
ATGGATAGTT TGACTTGGCT CAATGACCTG ATTTACCCTA TGATGGTGGT CATTCAGACC	660
ATTCCGACCA TTGCCATAGC TCCTATCCTG GTCTTGTTGGC TAGGTTATGG GATTTTGCCC	720
AAGATTGTCT TGATTATCTT AACGACAACC TTTCCCATCA TCGTTAGTAT TTTGGACGGT	780
TTTAGGCATT GCGACAAGGA TATGCTGACC TTGTTTAGTC TGATGCGGGC CAAGCCTTGG	840
CAAATCCTGT GGCATTTTAA AATCCCAGTT AGCCTGCCTT ACTTTTATGC AGGTCTGAGG	900
GTCAGTGTCT CCTACGCCTT TATCACAACT GTGGTATCTG AGTGGTTGGG AGGTTTTGAA	960
GGTCTTGGTG TTTATATGAT TCAGTCTAAA AAAGTGTTC AGTATGATAC CATGTTTGCC	1020
ATTATTATTC TGGTGTGAT TATCAGTCTT TTGGGTATGA AGCTGGTCGA TATCAGTGAA	1080
AAATATGTGA TTAAATGGAA ACGTTCGTAG AATTAGAATG TTTCTGAAAA AGAAAAGAGG	1140

AAATCAAAAT GAAGAAAACA TGGAAAGTGT TTTTAACGCT TGTAACAGCT CTTGTAGCTG	1200
TTGTGCTTGT GGCCTGTGGT CAAGGAAGTCT CTTCTAAAGA CAACAAAGAG GCAGAACTTA	1260
AGAAGGTTGA CTTTATCCTA GACTGGACAC CAAATACCAA CCACACAGGG CTTTATGTTG	1320
CCAAGGAAAA AGGTTATTTT AAAGAAGCTG GAGTGGATGT TGATTGAAA TTGCCACCAG	1380
AAGAAAGTTC TTCTGACTTG GTTATCAACG GAAAGGCACC ATTTGCAGTG TATTTCCAAG	1440
ACTACATGGC TAAGAAATTG GAAAAAGGAG CAGGAATCAC TGCCGTTGCA GCTATTGTTG	1500
AACACAATAC ATCAGGAATC ATCTCTCGTA AATCTGATAA TGTAAGCAGT CCAAAGACT	1560
TGGTTGGTAA GAAATATGGG ACATGGAATG ACCCAACTGA ACTTGCTATG TTGAAAACCT	1620
TGGTAGAATC TCAAGGTGGA GACTTTGAGA AGGTTGAAAA AGTACCAAAT AACGACTCAA	1680
ACTCAATCAC ACCGATTGCC AATGGCGTCT TTGATACTGC TTGGATTTAC TACGGTTGGG	1740
ATGGTATCCT TGCTAAATCT CAAGGTGTAG ATGCTAACTT CATGTAATG AAAGACTATG	1800
TCAAGGAGTT TGACTACTAT TCACCAGTTA TCATCGCAAA CAACGACTAT CTGAAAGATA	1860
ACAAAGAAGA AGCTCGCAAA GTCATCCAAG CCATCAAAAA AGGCTACCAA TATGCCATGG	1920
AACATCCAGA AGAAGCTGCA GATATTCTCA TCAAGAATGC ACCTGAACTC AAGGAAAAAC	1980
GTGACTTTGT CATCGAATCT CAAAAATACT TGTCAAAGA ATACGCAAGC GACAAGGAAA	2040
AATGGGGTCA ATTTGACGCA GCTCGCTGGA ATGCTTTCTA CAAATGGGAT AAAGAAAATG	2100
GTATCCTTAA AGAAGACTTG ACAGACAAAG GCTTCACCAA CGAATTTGTG AAATAATGAC	2160
AGAAATTAGA CTAGAGCAGC TCAGTTATGC CTATGGTCAG GAGAGGATTT TAGAGGATAT	2220
CAACCTACAG GTGACTTCAG GCGAAGTGGT TTCCATCCTA GGCCCAAGTG GTGTTGGAAA	2280
GACCACCCTC TTTAATCTAA TCGCTGGGAT TTTAGAAGTT CAGTCAGGGA GAATGTCTCT	2340
TGATGGTGAA GAAAAATCCA AGGGGCGCGT GAGTTATATG TTGCAAAAGG ATCTGCTCTT	2400
GGAGCACAAG ACGGTGCTTG GAAATATCAT TCTGCCCCTC TTGATTCAAA AGGTGGATAA	2460
GGCAGAAGCT ATTTCCCGAG CGGATAAAAT TCTTGCGACC TTCCAGCTGA CAGCTGTAAG	2520
AGACAAGTAT CCTCATGAAC TTAGCGGTGG GATGCGCCAG CGTGTAGCCT TACTCCGGAC	2580
CTACCTTTTT GGGCACAAGC TCTTTCTCTT AGATGAGGCC TTTAGCGCCT TGGATGAGAT	2640
GACAAAGATG GAACTCCACG CTTGGTATCT TGAGATTCAC AAGCAGTTGC AGCTAACAAC	2700
CCTGATCATC ACGCATAGTA TTGAGGAGGC CCTCAATCTC AGCGACCGTA TCTATATCTT	2760
GAAAAATCGC CCTGGGCAGA TTGTTTCAGA AATTAAACTA GATTGGTCTG AAGATGAGGA	2820
CAAGGAAGTC CAAAAGATTG CCTACAAACG TCAAATTTTG GCGGAATTAG GCTTAGATAA	2880

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GTAGAAAAAT	AGGGAGTTGG	TGAAGATTAT	CCTTTACCAG	CGCCCTTTT	CTTTTAAAAA	2940
TGAGAAAAAT	TCGGTATAAT	AGTCAAACAA	GGTCAAGGTT	TAAAGAGAGA	GGTGGGTTTG	3000
TTATGAGATT	TAAAAATACA	TCGGATCATA	TTGAGGCCTA	CATCAAGGCG	ATTTTAGATC	3060
AATCTGGTAT	CGTGGAGTTG	CAACGGAGTC	AGTTGGCAGA	TACCTTTCAG	GTTGTTCCCTA	3120
GTCAGATTAA	CTACGTGATC	AAGACACGCT	TTACGGAAAG	TAGAGGCTAC	TTGGTTGAAA	3180
GTAAGCGTGG	TGGCGGAGGC	TACATTTCGT	TAGGACGGAT	TGAGTTTCT	AGTCATCATG	3240
AAATGCTCCG	GGAGCTGCTT	TACTCGATTG	GTGAGCGAGT	CAGTCAAGAA	ATTTATGAGG	3300
ATATTCTCCA	GCTTTTGGTT	GAGCAGGAAT	TGATGACCAA	GCAGGAGATG	AATTTGCTAG	3360
AATCAGTAGC	TTTGGATCGC	GTTTTAGGAG	AAGAAGCTCC	AGTTGTTCGA	GCAAACATGC	3420
TACGTCAGAT	CATACAAGAG	GTAGATAGAA	AAGGGAAGTA	AGATGAACTA	TTCAAAAGCA	3480
TTGAATGAAT	GTATCGAAAG	TGCCTACATG	GTTGCTGGAC	ATTTTGGAGC	TCGTTATCTA	3540
GAGTCGTGGC	ACTTGTTGAT	TGCCATGTCT	AATCACAGTT	ATAGTGTAGC	AGGGGCAACT	3600
TTAAATGATT	ATCCGTATGA	GATGGACCGT	TTAGAAGAGG	TGGCTTTGGA	ACTGACTGAA	3660
ACGGACTATA	GCCAGGATGA	AACCTTTACG	GAATTGCCGT	TCTCCCGTCG	TTTGCAGGTT	3720
CTTTTGTGATG	AAGCAGAGTA	TGTAGCGTCA	GTGGTCCATG	CTAAGGTACT	AGGGACAGAG	3780
CACGTCCTCT	ATGCGATTTT	GCATGATAGC	AATGCCTTGG	CGACTCGTAT	CTTGGAGAGG	3840
GCTGGTTTTT	CTTATGAAGA	CAAGAAAGAT	CAGGTCAAGA	TTGCTGCTCT	TCGTCGAAAT	3900
TTAGAAGAAC	GGGCAGGCTG	GACTCGTGAA	GATCTCAAGG	CTTTACGCCA	ACGCCATCGT	3960
ACAGTAGCTG	ACAAGCAAAA	TTCTATGGCC	AATATGATGG	GCATGCCGCA	GACTCCTAGT	4020
GGTGGTCTCG	AGGATTATAC	GCATGATTTG	ACAGAGCAAG	CGCGTTCTGG	CAAGTTAGAA	4080
CCAGTCATCG	GTCGGGACAA	GGAAATCTCA	CGTATGATTC	AAATCTTGAG	CCGGAAGACT	4140
AAGAACAACC	CTGTCTTGGT	TGGGGATGCT	GGTGTGGGA	AAACAGCTCT	GGCGCTTGGT	4200
CTTGCCCAGC	GTATTGCTAG	TGGTGACGTG	CCTGCGGAAA	TGGCTAAGAT	GCGCGTGTTA	4260
GAACCTTGATT	TGATGAATGT	CGTTGCAGGG	ACACGCTTCC	GTGGTGACTT	TGAAGAACGC	4320
ATGAATAATA	TCATCAAGGA	TATTGAAGAA	GATGGCCAAG	TCATCCTCTT	TATCGATGAA	4380
CTCCACACCA	TCATGGGTTT	TGGTAGCGGG	ATTGATTCGA	CTCTGGATGC	GGCCAATATC	4440
TTGAAACCAG	CCTTGGCGCG	TGGAACCTTG	AGAACGGTTG	GTGCCACTAC	TCAGGAAGAA	4500
TATCAAAAAC	ATATCGAAAA	AGATGCGGCA	CTTTCCTCGT	GTTTCGCTAA	AGTGACGATT	4560
GAAGAACCAA	GTGTGGCAGA	TAGTATGACT	ATTTTACAAG	GTTTGAAGGC	GACTTATGAG	4620
AAACATCACC	GTGTACAAAT	CACAGATGAA	GCGGTTGAAA	CAGCGGTTAA	GATGGCTCAT	4680

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CGTTATTTAA CCAGTCGTCA CTTGCCAGAC TCTGCTATCG ATCTCTTGGA TGAGGCGGCA	4740
GCAACAGTGC AAAATAAGGC AAAGCATGTA AAAGCAGACG ATTCAGATTT GAGTCCAGCT	4800
GACAAGGCCC TGATGGATGG CAAGTGGAAG CAGGCAGCCC AGCTAATCGC AAAAGAAGAG	4860
GAAGTACCTG TCTACAAAGA CTTGGTGACA GAGTCTGATA TTTTGACCAC CTTGAGTCGC	4920
TTGTCAAGAA TCCCAGTTCA AAAACTGACT CAAACGGATG CTAAGAAGTA TTAAATCTT	4980
GAAGCAGAAC TCCATAAACG GGTATTCGGT CAAGATCAAG CTGTTTCAAG CATTAGCCGT	5040
GCCATTCGCC GCAACCAGTC AGGGATTCGC AGTCATAAGC GTCCGATTGG TTCCTTTATG	5100
TTCCTAGGGC CTACAGGTGT CGGGAAAAC GAATTAGCCA AGGCTCTGGC AGAAGTTCTT	5160
TTTGACGACG AATCAGCCCT TATCCGCTTT GATATGAGTG AGTATATGGA GAAATTTGCA	5220
GCTAGTCGTC TCAACGGAGC TCCTCCAGGC TATGTAGGAT ATGAAGAAGG TGGGGAGTTG	5280
ACAGAGAAGG TTCGCAATAA ACCCTATTCC GTTCTCCTCT TTGATGAGGT AGAGAAGGCC	5340
CACCCAGATA TCTTTAATGT TCTCTGCGAG GTTCTGGATG ACGGTGTCTT GACAGATAGC	5400
AAGGGACGCA AGGTCGATTT TTCAAATACC ATTATCATTA TGACATCGAA TCTAGGTGCG	5460
ACTGCCCTTC GTGATGATAA GACTGTTGGT TTTGGGGCTA AGGATATTCG TTTTGACCAG	5520
GAAAAATATG AAAAACGCAT GTTTGAAGAA CTGAAAAAAG CTTATAGACC GGAATTCATC	5580
AACCGTATTG ATGAGAAGGT GGTCTTCCAT AGCCTATCTA GTGATCATAT GCAGGAAGTG	5640
GTGAAGATTA TGGTCAAGCC TTTAGTGGCA AGTTTGACTG AAAAAGGCAT TGACTTGAAA	5700
TTACAAGCTT CAGCTCTGAA ATTGTTAGCA AATCAAGGAT ATGACCCAGA GATGGGAGCT	5760
CGCCCACTTC GCAGAACCCT GCAAACAGAA GTGGAGGACA AGTTGGCAGA ACTTCTTCTC	5820
AAGGGAGATT TAGTGGCAGG CAGCACACTT AAGATTGGTG TCAAAGCAGG CCAGTTAAAA	5880
TTTGATATTG CATAAAAGAA TAAAAGTATC AGCATCTGAC CATAAGTCAC AGTGGAGTGA	5940
AATTCATGA AAATCAAAGA GCAAAC TAGG CAGCTAGCCG CAGGTTGCTC AAAACACTGG	6000
TTTGAGGTTG CAGATAGAGC TGACGTGGTT TGAAGAGATT TTCGAAGAGT ATGAAACTAA	6060
AACCTATAGC TTCTAAACGA TCCGTGGTTT TCATCATTTA ACACAAAATT CATATGTTTA	6120
TTACCCTCCG TCGTATTTGT CTTAGAGCGT GTGTAGTAGA AAAAGAGCAG TCTTATCTGA	6180
AATTTTTATT CTTTCAAAG AGACCTGTTT CTTTTTTGCA TGTCAAATCC GTTCTAGCTG	6240
GTATTTGAAA AATCAAAC TAATTTCAATG AAAATCAAAG AACAACTAG GAAGCTAGCC	6300
GCAGGTTGCT CAAAACACTG TTTTGAGGTT GTAGATAGAG CTGACGTGGT TTGAAGAGAT	6360
TTTCGAAGAG TATAAGCTGC AAGATGAATG ATTTTCTTGT ATTGACGTTG TTGTTGACAA	6420

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AAAGTAGCGG	ATAAATGAAA	TCCATTCCAT	TATCATAGAT	GATAGGCTGG	TAGGAAATTT	6480
TCAAATAGCA	TACAGGAAAT	AGATGTATGG	AGTTCTGGTA	GTAGAAAGGG	AGAGAGATGA	6540
ACATTTTAGT	TGCAGATGAC	GAGGAAATGA	TTAGAGAAGG	AATTGCAGCA	TTTCTGACAG	6600
AAGAGGGTTA	TCATGTCATT	ATGGCTAAGG	ATGGACAAGA	GGTCTTGGA	AAATTTCAAG	6660
ATCTCCCTAT	CCATCTCATG	GTACTGGATT	TAATGATGCC	TAGGAAGAGT	GGTTTTGAAG	6720
TGTTAAAAGA	AATCAATCAA	AAGCACGATA	TTCTCTGTCAT	CGTCTTGAGT	GCTCTGGGAG	6780
ATGAAACTAC	TCAGTCACAG	GTATTTGATC	TCTATGCTGA	TGATCATGTG	ACAAAACCTT	6840
TTTCTTTGGT	ACTGCTTGTC	AAGCGTATTA	AGGCGCTTAT	CAGACGTTAC	TACGTCATAG	6900
AGGATCTTTG	GCGATATCAG	GATGTAACAG	TGGATTTTAC	CTCTTACAAA	GCACATTATA	6960
AAAATGAAGA	AATTGATCTC	AAACCAAAGG	AATTACTGGT	ACTAAAGTGT	TTGATTTCAGC	7020
ATAAAATCA	AGTTTAAAGT	AGAGAGCAGA	TATTGGAAGA	AATTTCAAAA	GATGTAGCTG	7080
ATTTACCTTG	TGATAGGGTC	GTTGATGTCT	ATATTCGTAC	TCTTCGCAAA	AAATTAGCTT	7140
TAGATTGTAT	CGTGACTGTG	AAAAATGTTG	GGTATAAGAT	TAGCTTATGA	TAAAAAATCC	7200
TAAATTATTA	ACCAAGTCTT	TTTAAAGAAG	TTTGTCAATT	CTAGGTGGTG	TTGGTCTAGT	7260
CATTTCATATA	GCTATTTATT	TGACCTTTCC	TTTTTATTAT	ATTCAACTGG	AGGGGGAAAA	7320
GTTTAATGAG	AGCGCAAGAG	TGTTTACGGA	GTATTTAAAG	ACTAAGACAT	CTGATGAAAT	7380
TCCAAGCTTA	CTCCAGTCTT	ATTCAAAGTC	CTTGACCATA	TCTGCTCACC	TTAAAGAGA	7440
TATTGTAGAT	AAGCGGCTCC	CTCTTGTGCA	TGACTTGGAT	ATTAAAGATG	GAAAGCTATC	7500
AAATTATATC	GTGATGTTAG	ATATGTCTGT	TAGTACAGCA	GATGGTAAAC	AGGTAACCGT	7560
GCAATTTGTT	CACGGGGTGG	ATGTCTACAA	AGAAGCAAAG	AATATTTTGC	TTTTGTATCT	7620
CCCATATACA	TTTTTGTTA	CAATTGCTTT	TTCCTTTGTT	TTTTCTTATT	TTTATACTAA	7680
ACGCTTGCTC	AATCCTCTTT	TTTACATTTT	AGAAGTGAAT	AGTAAAATGC	AAGATTTGGA	7740
TGACAATATT	CGTTTTGATG	AAAGTAGGAA	AGATGAAGTT	GGTGAAGTTG	GAAAACAGAT	7800
TAATGGTATG	TATGAGCACT	TGTTGAAGGT	TATTTATGAG	TTGGAAAGTC	GTAATGAGCA	7860
AATTGTAAAA	TTGCAAAATC	AAAAGGTTTC	CTTTGTCCGC	GGAGCATCAC	ATGAGTTGAA	7920
AACCCCTTTA	GCCAGTCTTA	GAATTATCCT	AGAGAATATG	CAGCATAATA	TTGGAGATTA	7980
CAAAGATCAT	CCAAAATATA	TTGCAAAGAG	TATAAATAAG	ATTGACCAGA	TGAGCCACTT	8040
ATTAGAAGAA	GTAAGTGGAGT	CTTCTAAAT	CCAAGAGTGG	ACAGAGTGTC	GTGAGACCTT	8100
GAAGTTAAG	CCAGTTTATG	TAGATATTTT	ATCACGTTAT	CAAGAATTAG	CTCATTTCAAT	8160
AGGTGTTACA	ATTGAAAATC	AATTGACAGA	TGCTACCAGG	GTCGTCATGA	GTCTTAGGGC	8220

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ATTGGATAAG GTTTTGACAA ACCTGATTAG TAATGCAATT AAATATTCAG ATAAAAATGG	8280
GCGTGTAATC ATATCCGAGC AAGATGGCTA TCTCTCTATC AAAAATACAT GTGCGCCTCT	8340
AAGTGACCAA GAACTAGAAC ATTTATTTGA TATATTCTAT CATTCTCAA TCGTGACAGA	8400
TAAGGATGAA AGTTCCGGTT TGGGTCTTTA CATTGTGAAT AATATTTTAG AAAGCTATCA	8460
AATGGATTAT AGTTTCTCC CTTATGAACA CGGTATGGAA TTTAAGATTA GCTTGTAGAC	8520
AGATTAGTTT TTTATTAAAG TTCATATAGG GTTAACATAA GTGTGTTATT CTTTGTGTAG	8580
ATAAAAGAAA GGATACTAAT ATGGTATTAG CGATTATTTT AGTAACATTC TTTATTCGAT	8640
TGATTTTTTTT AAAGCGTTCG ATAGAGAATG AGAAACGAAT CCTTAGCAAT GGCGGGG	8697

(2) INFORMATION FOR SEQ ID NO: 124:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 4317 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 124:

AACCATACAT ACGGCAAGGC AAAGCTGACG CGGTTTGAAG AGATTTTCGA AGAGTATTAG	60
TTGCCCTTAA AGGCATCCAC CATCGTTTGA AATTCTTCAT TTGAGAGAGT AATCCCTTTG	120
CCCATTTTAG TATGGTCTGG ACTCCAAGCA CGAATATCAA ACTTTGCAGG GGCACCATTA	180
AAGCTCACAC GGTAAATTC CTTGGTCCAA CCTTTTTCGT TTTCAGAAAG AGTCAACAAG	240
TGCTCTTCGA TTTCAAATGT AAATTCTGCC ATTTTCTTCT CCTTTTTCAG TTTCATTAGT	300
TTATTCGTAA AATCTGTAG ATTTTAGGAA AATTTTATAT AATATTGATA TAAAAGAAGG	360
GAGGCCAATA TGAGACATAA ATTCCAGCAA GTTCTAAATA AAATACATGA TTTTAAAT	420
GGATATGACC AACCTGACCA GACTGAAACC AACTCCCTTA CAGCCACTAT TGAAGAGGCT	480
ATCCAGAAAC AAACGCTGT TCACCTTATC TTGTCTGAGA CAAGCTTTAC AGGTGACATC	540
ATCAAATATG ATCAGCAAGG CCAGCAAATT ATCGTGAAAA ATTTTTCCTT AAATGTGAGC	600
CGGATTATCC GTATAAGCGA TATTCAACGC CTGCGATTTG TCCCCTCAAC TGTCCAAACA	660
GCCCCAAAAA ATAGATTTAA GAAAGAGTGA GATGTAGTTG CTTTCATCCCA CTCTTTTTC	720
TTAGCGAATT TGTTCAAAAT GTAAATGAAC TGCGATATGA TCTCCATAAC CACTTCTTTC	780
CAAGTCACGT TGTAACGAT AGGAAATGTA GTGTTCTGCA ATGGTAATGT AACCTGCGCC	840
CAATAAACGA TGTTCACCA TAGATTGAAT CATACTGATA GTCGCACGTT CCACCTTGGC	900

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TTCTTGTA	AA	TCCAA	AACTA	CCTTCT	TAGT	GACTTG	GAGCA	AGATTTT	GAC	GCAA	ATCATC	960
TGTCA	AAACA	TAAAC	AGTTT	GGGCT	GCCTT	CAAGAT	GGCT	TGGTAA	ATCT	TATCT	GGATT	1020
AAATTC	AGCA	ATTTC	GCCAT	TACGTT	TGAT	TACTTG	CATA	GGTTTC	TCCT	TTATT	CTTTG	1080
TTTTCT	TTTGA	TTTCT	GCCAG	CATTTT	TTTCT	TCTTCT	ACTG	TCAGTT	GATA	ATGTT	CAAGT	1140
AAATCC	GGTC	TGCGCT	CGTA	GGTTT	TCTTT	AAACT	CTCGT	ACAAT	CGCCA	CTGAC	GAATC	1200
TTTTCAT	GGT	GGCCACT	CAT	CAATAC	ATCT	GGCAC	GACCA	TGCCT	CGATA	ATCAT	AGGGA	1260
CGTGT	GTACT	GAGGAT	ATTC	TAAA	AGACCT	GAAGAA	AAAC	TATCAT	CTTG	GTGGC	TAGAC	1320
TCCTTG	CCAA	TCACT	TCTGG	AATCAG	GCGA	ACTGT	AGCAT	CAATCAT	GGT	CATAG	CTGCC	1380
AATTC	TCCAC	CAGTG	AGGAC	ATAGT	CACCT	AGGAA	ATCT	CATCT	GTTAC	CAAGT	CTTA	1440
ATGCG	CTCAT	CATAA	CCCTC	ATAGT	GCCCA	CAGATA	AAAGA	TTAGCT	CTTC	CTCTG	AGCC	1500
AAATCT	TTCAG	CATAA	GCCTG	ATCAA	ACTGC	TTTCC	AGCAG	GATCA	AGGAG	AATAA	CGCGC	1560
GGATTT	TTTCT	TTTCA	ATAGC	ATCAA	AGGAA	TCGAA	AATAG	GTGTG	CTCT	GAGCA	ACATG	1620
CCCTG	ACCGC	CTCCG	TAGGG	CTCAT	CATCT	ACATG	ACGGG	CCTTT	TTCAGC	ATTTT	CTCGA	1680
AAATTAT	GAT	ACTGG	ATATC	CAAGAG	CCCT	TTTCT	CGAG	CCTTT	CCAAC	GATTG	AGTGC	1740
TCCAGT	GGAG	AAAAC	ATCTC	TGGAA	AGAGG	GTTAA	AATAT	CAATCT	TTCAT	CGTCT	AACCC	1800
TTCTA	AGATT	TCCAC	ATCGA	CCCGT	TTTACT	TGGAAT	ATCA	ACATT	GAGAA	CCACT	GGTGG	1860
GATATA	AAGGT	AAAAG	CAAAT	CACGT	TTTGCC	TTTTC	GTGTTG	ACCAC	CCAGA	CATCAT	TAGC	1920
ACCTG	GTTGC	AGGATT	TCCT	TGATG	GTTCC	AACCA	AGCTA	TCACC	CTCAT	AGACT	TCAA	1980
ACCGATA	ATC	TCGTG	ATAGT	AAAAT	TCAAC	ATCGT	CTAGG	TCATT	CAAAT	CTTC	CTCAGC	2040
GACCTT	GAGA	CTGTAT	CCCT	TGTACT	TTTC	GATAGT	ATTG	ATATG	GTACA	TATCT	TTGAA	2100
TTTAATA	ATG	TCAAAG	TCT	TCTGTT	TACG	GTGGC	TAGCG	ATGGT	CACTG	TTTGG	ACAAA	2160
CTGATC	TTTT	TCATCA	AAACA	AAACC	AGCTC	CTTTT	TTAA	ACCGTT	CTTCT	GCAAA		2220
ATCCGT	CACA	GACAAG	ACTC	GCATCT	CCCC	CTGTA	ATCCC	TGCGT	ATTAA	CGATT	TTCCC	2280
AACATT	AAG	TAGTT	CATCT	TGTCT	CCTGT	AATCT	CCTTT	TTTCC	ATCTT	ATTCT	AACAA	2340
TTCTC	GAATA	ATAGC	CGCAA	TTTTT	TCCGA	TTCTG	ACCAT	TGTAA	ATAAT	GGTGA	TCCC	2400
TCCTAAA	ATG	AGTTT	AGTAT	TGGA	AGTCCA	ATATT	CTGAT	TCTCT	GTA	CTTTT	CTCT	2460
ATAAGG	CTGA	CAAAAA	CAAA	ATACAG	GAAT	ATGAG	CTTCT	ATAGAT	ACAT	CCTCAA	AAATC	2520
TTCTC	AGTA	ATCTCT	CCAG	ATATCT	GAAA	TTCTG	GATCT	TGATT	TTCCA	ACTCT	AAGCC	2580
TTTTT	CTTGC	ATTAAT	TCCC	AGATTT	TTTTT	ATTCG	TTTCA	GGACT	AAATG	TTGCT	TGAGT	2640
TAAGTT	CTTA	AAATAA	AGTT	CAGGAC	CACA	CTCGT	CAATC	AGCCT	CATCT	GCTCT	TCCAT	2700



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TTCTGGATAA GGATTTTCTG AAAAATCAGC AAACATGACT TTTTtagTTG TCGGTTCAAT	2760
TGCTACTAAA GTCTGACGCT TAATTGGTTT CTCGAGTAAT TTGCAAGCTA AAATTCCTACT	2820
CCAACATATGT GCACAAAGTA TATATTCAGA AATTCCTAAT TCTTCAAGTA CTTCATAAAC	2880
CGCATCTGCA AGATTATCTA GATTTTTTCC AGCTTGGTCA TGAATCGGAC TCCTACCTGT	2940
GTTCGGAAAA TCAATTGTCA AATAACCAAT TGTAGGAGGA GGTTTTTCaa GTATAAGTGA	3000
AAAATTTTCA TAACTTGGTA GCAAACCTGC TCCGTTTAAA CAACTAGCA CTTTCTTTTG	3060
CTTTTGATAA GTAACAGAGA GGCTACCAAT TTCTGTAGAT ACTTCAAACC TCTCATAAA	3120
GAAATCCACT GATTCTATAT AATGAATTAT TAAAAATCCT TATCCTTTAT TTTATCACGT	3180
TCCAAGGATT TTCTCAAGTT GGAGGAAGGG GACAATATCT CTACTTTCCC TTCAATAATC	3240
CTTCCAAATT ATGTTTATGT TGGAATTAA TGGCTGCGGT TTTGTCTTTC TCAAAGACAG	3300
TCTTGGTAAAG GTCAATATGA TTAATAGCTA CGATTGCGAC GGTGTAGTAA ATGATATCAG	3360
CCAGTTCTCT GGCAAGTTCC TCGTTCGAAT CCTATCCCTT CTTTTCGACC AGAGCGCCTA	3420
TTCAAAACCT CGACTACTTC TCCGACTTCC TCCACTAACT TCATAAAGAG ACCTTCATCA	3480
GTCCGAGACT GCTGTTAATG TTCGATTAAG TAGTCTTGA ATTGCCATAA CGTTCATCT	3540
TTTATAGTAT ATTGAACTA GAATAGTACA CCTTTACTTC TAAAACATTG TTAGAAATCG	3600
ATTTGACTGT CCTGATCGAT TTGTCCTGTT CTGTTTCAT TTTACTATAT CTTCTATTCC	3660
ACACAAAAAA GCGAGACATC CGTCCCGCCC TTCTTATTTT TCGTCAATAA CGATTCTTAC	3720
TTTTTTGTAT TCAGTTGGGA CAGAGTAGAC AATCGTCTT ATCGCAGAAA TAGTGCAGACC	3780
CTTACGACCG ATTACACGAC CCACATCGCT TTGATCAAGA TTCAAATGAT ATTCCAAAAA	3840
TTCTGGTGTA TCCTCAATCT TGATAGTTAA GGCATCTGGT TGTGAAATTA AGGGTTTCAC	3900
AATCGCAATA ATGAGATTTT CAATCGTATC CATCTGTCAA CCTACTTTAA ACTTATTTTG	3960
AAAATTTAGA ATCGTGGAAT TTTTTCATA CGCCTTCTTT TGAAAGGATG TTACGTACTG	4020
TGTCTGAAGG TTGAGCTCCA TTAGCCAACC ATGCAAGAAC GCGGTCTTCT TTCAAAGTTA	4080
CTTGGTTTTC AGCAACAAGT GGGTTGTAAG TTCCAACGTG TTCGATGAAA CGTCCGTCAC	4140
GTGGTGAACG TGAATCTGCT ACGTTGATAC GGTAGAAAGG TTTTTCCTTA GAACCCATAC	4200
GAGTCAAACG GATTTTAACT GCCATTTTAA AAGTCTCATT TCTTTAATTT TTTATTTTCGG	4260
TGAAATAGCT GAGCTATTTA GCACATGTTC TATTATAGCA GATTTCGGC ATGTGTC	4317

(2) INFORMATION FOR SEQ ID NO: 125:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4881 base pairs

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(B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 125:

AATTTATTTG ACTGGAATT GTAGAGGTT CTCGAAATTT CTTGAATGGT TAAAATAAGG	60
ACAAGAGAAA ACATGGATAT CTATATCCTT GTGCCAAAAA AACCCTGCC CTCCCAGAC	120
CAACCTGAGG AAAGCAGTGA TTCTTATTTT AGGAGTTAGG AATGAATACA CGAAATCAAT	180
TTAGCTGATT ATTTTTTGTT TTTCAAGAAT TCATCGTATT GTTTTTCAT TTCGTTCAAT	240
ACTTTTTCGT AGGCACCTTC AGATTTCAT TTTTCCATCA ATTCTGGAAT CGCTTTATCT	300
GGGTCTACAG TACCAGTGTT GATAGCTGTA TCAAATTGTT GCATTGTGTT AGCAATAGCT	360
GAGATTTTCA ATTTCACATT GTCAGTATTG AAGATAAATC CAAGCGCTGG AGATTCTTTA	420
GCTTCTGCCA ATTCCTTCTT AGAATTTTCG ATTTGTTGGT CTGTAACGTT TTCGTTGATG	480
TAAAGGATCC AGTTGTTACC AGTGTTCAT CCACCCATGT GAGTGTTCCT TTTGTAGCCA	540
TCAAGAACGC GAACACGGTT TTCTTTACCT TCAATTTTTT CCCAGTTCTT GCCTTCTGGA	600
CCGTAAACAA GACCGTTCAA GAGTTCTGGG TTCGTATTCA AGAGTTCAA GATTTCATT	660
GATTTTCTT TGTCTTAGA GTTGTTGAG ATGACAAAGT TAGCAACTTG TGTGTTTGG	720
TTTTTCTTGA TGAAGTAGT AATTGGTTT ATTTGGATAT CTTTGTGGC AACACGTGAA	780
AGCAAGCTGT TACCGTAGTC AGCTGGTCCT ACTGTTTCTT CACGAACGAA CCAAGTATCT	840
TGTTGAAGGT CAAAGGAAGT ATCGCTTGT GCGACGTCTT TTGGAATGTA GCCAGCTTCA	900
TAGAATTTGT GAAGAGTCTT CAAGTGTCTT TTGAAACGAG GCACTTCGTA ACGGTTTACA	960
ACTTTAGTAG TATCGCCTTC AAGGTCGATA ACGAATGGAA GACCGTTTGC TACTGGGTAG	1020
TCAAATTAT CAGATGGGAT GAAAACCTTA CCAATAGCAA ATGGTACTAC GTCTGGAGCT	1080
TTTTCTTTGA TTTGTTTCAA GACTGGCTCA AGAGTTTCGT AAGAAGTAAC ACCTGAAATA	1140
TCGATACCAT ATTTAGCAAG GAGAGTTCCG TTGAAGGCAA AGTTTGTAGA TGATGCAACG	1200
TTGGCTGCAA CTGGAACAGC GTAAATCTTA CCATTTACAG TATTACCCTT GATGTAAGCT	1260
GGGTCAAGTG CTTTGTAAG GTCTTTACCT TCTTTTTTGT ACAATTCTGT CAAGTCAGCG	1320
TAAGCACCTT TTTGAGCATT TACAATATAG TTATCTGCAA AGGCAATATC ATAGTTTCA	1380
CCAGATGATG TGATAACTGA CATTTTCTTA CCATAGTCAC CCCAGCCAAG GTATTGGATA	1440
TCCAATTTGG CACCAACTTT TTCTTCAATG ATTTTGTGG CATTTGCTAA CAATTCATCC	1500
AAGTTGTCTG GTTGTGACC GATTGGTAC ATTTTGATAA CAGGTTTGTG ACCTGAATCA	1560

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GCAGCTTTTT	TGCTGTTACC	TGTCAAATTT	CCACAAGCAG	CAAGACCTGC	AGCCAGAGCG	1620
ACTACACTAG	CAGATGCAAA	AGCATATTTT	TTCCAGTTTT	TCATGATAAA	AACTCCTTTT	1680
TTTATTTTTA	AACTTATAAA	CAATGTAATG	ATCTTATACT	CAATAAAAAT	CAAAGAGCAA	1740
ACTAGAAAAC	TAGCCGCAGG	CTGCTCAAAG	CACTGCTTTG	AGGTTGTAGA	TAAGACTGAC	1800
GAAGTCAGTT	ACATATATCT	ACGGCAAGGC	GACGTTGACG	CGGTTTGAAT	TTGATTTTCG	1860
AAGAGTATTA	ACTTCACACA	AGGGAAGTTG	GGAAGTGAAG	AATGTTATTT	CTCAATAAGC	1920
ACTATCTTTT	CACACCACCG	ATAGTCAAAC	CTTTTACAAA	GTAGCGTTGG	AAAAATGGAT	1980
ACAAAATCGC	GATTGGAAGG	GTTGCAACCA	CAACCATGGC	CATACGACCT	GTTTCTTTCG	2040
GTAGAGCAAC	TCCCAGTTGA	CCAATCAAGC	CGACCGCTTT	GGCAATGTAG	TCCATATTTT	2100
GTTGGATTTG	CATGAGCAAA	TATTGCAATG	GATACAAGTT	GTCACCTTTG	ATGTAAAGAA	2160
GGGCGTTGAA	CCAGTCATTC	CAGAAACCAA	GAGCTGTTAA	GAGCGTGATG	GTTGCGATAC	2220
CTGGTAGTGA	CAATGGCAAA	CAGATTGGA	AGAAAATCCG	GGCCTCACTG	GCACCATCGA	2280
TACGAGCCGA	TTCTAGAATG	GCTTCTGGAA	TGGTCTTCTT	GAAGAAGGAA	CGCATCAAGA	2340
TGATGTTAAA	TGGTGAGAGA	AGCATTTGGA	CAATCAAGGC	CCAAACAGTG	TCACCAAGCT	2400
GAAGTACACG	GGTCACCATG	ATATAACCTG	GTACCAAACC	AGCGTTGAAC	AACATACTGA	2460
GAAGGACGAA	GATGGTAAAG	AATCTGCGAT	ACTTAAAGGT	TGTCCGTGAA	ATAGCGTAGG	2520
CATAGGTTGT	TGTGATAAAG	ACATTTGTCA	ATGTCCCAAC	TACGGTTACA	AAGACAGAGA	2580
TGAAGAGGGC	TTGTAGGATT	TTATCCTTAA	ACTGTGCCAA	AAACTCAAAA	CCGTCTAAGC	2640
CAAATTGGA	TGGGAAGAAG	CTATAGCCGT	ATTGGAGGAG	GCTTTTCTCG	TCTGTCACTG	2700
AAATAATGAT	AACGAATACA	AAAGGTAGGA	TACAAGAGAG	GGCAATCAAA	CCCGAAATGA	2760
TACTGAAGAA	GATATCTGCT	TTCTTACTGA	AGGAGTGAAT	GCCGACATTA	TCAATTTTTT	2820
CTTTTTTAAT	TTTCTTTTTT	GCCATATTCT	CCTCCTTTCT	AGAACAAAGC	TGAGTTTGGA	2880
TCGACTCGTC	TTGCAAGCAA	GTTTGATAGG	ATAACCAGAA	TCAAACCAAC	AACGGATTGG	2940
TAAAGACCGG	CTGCTGCAGC	CATACCGATA	TCTGCTGTCT	GAGTCAAACC	ATTAAAGACA	3000
TATACGTCCA	AAACGTTGGT	TACATTGTAA	AGCTGACCAG	CATTGTGTGG	GATTTGATAG	3060
AAGAGACCGA	AGTCTGCGCG	GAAGATATTT	CCGACTGCAA	GGATGGTCAA	TACAGTTACA	3120
AGCGGAGTCA	ACTGAGGAAT	GGTTACGTTG	CGAATACGTT	GCCACTTGCT	AGCTCCGTCC	3180
ACTGTCGCTG	CTTCGTAGTA	GGTTGGATCA	ATTCCCATGA	TCGTCGCATA	GTACATGACA	3240
CTGCTATATC	CAAAGCCTTT	CCAAATACCT	AGGAAAAGTA	GGAGATAGGG	CCAGATGCCC	3300

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AGGTCAGCGT AGAAATTGAC TTCTTTGAGA CCAAGACTTT CCAATAGATG ATTGAACACC	3360
CCTTTATCAA TATTTAGGAA GGCATCTGTA AAGAAACTGA TGATAACCCA AGACAAGAAG	3420
TAAGGGAACA ACATAGAAGT TTGAAAAATC TTCACCATTTC TCTTAGAACG GAGCTCGCTG	3480
AGGATAATGG CAATCCCTAC AGATACAAC T AACCTAGAA AGATAAAGCC AAGATTGTAG	3540
AGGACAGTAT TTCGTGTGAT AATAAAGGCG TCTCTTGAAC TAAATAAGAA TCTAAAATTA	3600
TCGAGTCCGA CCCATTTACT ATTTATGATA CTATCTATGA AACCATTACT GGTCATGTGG	3660
TAGTCTTTGA AGGCAACCAC GTTCCCAAAT ACTGGAATGT AAAAGAATAG AATCAACCAG	3720
AGTGCCCTG GCAAAACCAT CAAGAGAAAG ATCCAGTTGT CTCTCAATGT TTTTGAAAAC	3780
TTTTTCATAA TTTCCTCCCT TTTTATTTTG ATATCCATCT AAAAATTCTT TTTTAGACTT	3840
TTGATAACGA TTACATTATT AGTATACTCC TATTGTCAGG TTAGGTAA CTCTAATTA	3900
TAGAAAAAC TCCACAAAT ATGTAGCAGA TTTAAACTT TATCACCAC ATCAAACAAA	3960
TGCTCTAAAT CAATTGTTTA TTTTATCTCT ATTAGCCCAG TGATGGCGTC ACTCTGTTAT	4020
AAGCATCCAA CAACGGGGTA TACTGAAAA TCTCCAGACT AGGGAAC TCA GCGATAGTTC	4080
CTAATCTGGA GATTTTAAAT ATGTTATTAG GCGTTTGCTT TCAACTTAGC AATAACCTCT	4140
TTAAGATTAT CAATCAACTC TGCTGCAGTA TGCTCAGAGC CTTTTTCATC TGCCAAGAAC	4200
AAACTGCTT TTTGAAGTTC TTTTGAGAG TTTTCAAGGA CATCCTTATC TACTGTTTCA	4260
AGGTTTGAGT CTTTAAAGAG TTTACTTAAT TCCTTGGCTA ATTTCTTGAG TTTGATTGTC	4320
AGACTCATCT TCTCCTGCTG TTTCTTTGCC CGCTGTTTGT CCTCCATCCT TAGTTGCTGA	4380
CTGGCTTTCC TTAATGGACT CTAGGGAAGC AATGGCATCT TTGACTGTTT GCAAGATATC	4440
ACGTAAACCT TGCTCTGTCA AACTATCATC TGCAAAAGCT TTATTAGCCT CTGCCAAAAC	4500
CAGACGTGCT GAATCTGTGG TAGGATTCGA TACACCTGTC AATGATCTCA AAAGATTTTC	4560
TAAGGTTTGA GTCTGCTTAC TAATACTAGA CTAAATCAA AAAGTATTAT ATAACAGTGA	4620
TATGAAATCA ACTAAAGAAG AAATCCAAAC CATCAAAACA CTTTAAAAG ACTCTCGTAC	4680
AGCTAAATAT CATAAACGCC TTCAAATCGT TCTATTTTGT CTGATGGGCA AATCTTATAA	4740
AGAGATTATA GAACTTTTAT AGTAGTTTGA AATAAGATGT GAACATCTCT ATCAGGAAAG	4800
TCAAATTAAT TTATAGAAAT ATTTTAGCAG CCAAGGTGTA CTGTTATAGA TTCAATACAC	4860
TATACTTGGT GGTTTAGCTC G	4881

(2) INFORMATION FOR SEQ ID NO: 126:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 13121 base pairs
  - (B) TYPE: nucleic acid

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(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 126:

AGGATCCCCG GAAAAGGAGA CTAAAAATGA AGAAAAAATT TCTAGCATTT TTGCTAATTT	60
TATTCCCAAT TTTCTCATTA GGTATTGCCA AAGCAGAAAC GATTAAGATT GTTTCTGATA	120
CCGCCTATGC ACCTTTTGAG TTAAAGATT CAGATCAAAC TTATAAAGGA ATTGATGTTG	180
ACATTATTAA CAAAGTCGCT GAGATTAAAG GCTGGAACAT TCAGATGTCC TATCCTGGAT	240
TTGACGCAGC AGTCAATGCG GTTCAAGCTG GGCAAGCCGA CGCTATCATG GCAGGGATGA	300
CAAAGACTAA AGAACGTGAA AAAGTCTTCA CCATGTCTGA TACTTACTAT GATACAAAAG	360
TTGTCAATGC TACTACAAAG TCACACAAAA TTAGCAAGTA CGACCAATTA ACTGGCAAAA	420
CCGTTGGTGT TAAAAACGGA ACTGCCGCTC AACGTTTCCT TGAAACAATC AAAGATAAAT	480
ACGGCTTTAC TATTAAAACA TTTGACACTG GTGATTAAAT GAACAACAGC TTGAGTGCTG	540
GTGCCATCGA TGCCATGATG GATGACAAAC CTGTTATCGA ATATGCCATT AACCAAGGTC	600
AAGACCTCCA TATTGAAATG GATGGTGAAG CTGTAGGAAG TTTTGCTTTC GGTGTGAAAA	660
AAGGAAGTAA ATACGAGCAC CTGGTTACTG AATTAAACCA AGCCTTGTCT GAAATGAAAA	720
AAGATGGTAG TCTTGATAAA ATTATCAAGA AATGGACTGC TTCATCATCT TCAGCAGTGC	780
CAACTACAAC TACTCTCGCA GGATTAAAAG CTATTCCTGT TAAGGCTAAA TATATCATTG	840
CCAGCGATTG TTCTTTTGCC CCTTTTGTTC TCCAAAATTC AAGCAACCAA TACACTGGTA	900
TTGATATGGA ATTGATTAAG GCAATCGCTA AAGACCAAGG TTTTGAAATT GAAATCACCA	960
ACCCTGGTTT TGATGCTGCT ATCAGTGCTG TCCAAGCTGG TCAAGCCGAT GGTATCATCG	1020
CTGGTATGTC TGTACAGAT GCTCGTAAG CAACTTTTGA CTTCTCAGAA TCATACTACA	1080
CTGCTAATAC CATCTTGGT GTCAAAGAAT CAAGCAATAT TGCTTCTTAT GAAGATCTAA	1140
AAGGAAAGAC AGTCGGTGT AAAAACGGAA CTGCTTCTCA AACCTTCCTA ACAGAAAATC	1200
AAAGCAAATA CGGCTACAAA ATCAAAACCT TTGCTGATGG TTCTTCAATG TATGACAGTT	1260
TAAACACTGG TGCCATTGAT GCCGTTATGG ATGATGAACC TGTTCCTCAA TATTCTATCA	1320
GCCAAGGTCA AAAATTGAAA ACTCCAATCT CTGGAAGTCC AATCGGTGAA ACAGCCTTTG	1380
CCGTTAAAAA AGGAGCAAAT CCAGAACTGA TTGAAATGTT CAACAACGGA CTTGCAAACC	1440
TTAAAGCAAA CGGTGAATTC CAAAAGATTC TTGACAAATA CCTAGCTAGC GAATCTTCAA	1500
CTGCTTCAAC AAGTACTGTT GACGAAACAA CGCTCTGGGG CTTGCTTCAA AACAACTACA	1560

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AACAACCTCCT	TAGCGGTCTT	GGTATCACTC	TTGCTCTAGC	TCTTATCTCA	TTTGCTATTG	1620
CCATTGTCAT	CGGAATTATC	TTCGGTATGT	TTAGCGTTAG	CCCATACAAA	TCTCTTCGCG	1680
TCATCTCTGA	GATTTTCGTT	GACGTTATTC	GTGGTATTCC	ATTGATGATT	CTTGCAGCCT	1740
TCATCTTCTG	GGGAATTCCA	AACTTCATCG	AGTCTATCAC	AGGCCAACAA	AGCCCAATTA	1800
ACGACTTTGT	AGCTGGAACC	ATTGCCCTCT	CACTCAATGC	GGCTGCTTAT	ATCGCTGAAA	1860
TCGTTCGTGG	TGGTATTCAG	GCCGTTCAG	TTGGCCAAAT	GGAAGCCAGC	CGAAGCTTGG	1920
GTATCTCTTA	TGGA AAAACC	ATGCGTAAGA	TTATCTTGCC	ACAAGCAACT	AAATTGATGT	1980
TGCCAAACTT	TGTCAACCAA	TTCGTTATCG	CTCTTAAAGA	TACAACATATC	GTATCTGCTA	2040
TCGGTTTGGT	TGAACTCTTC	CAAACTGGTA	AGATTATCAT	TGCTCGTAAC	TACCAAAGTT	2100
TCAAGATGTA	TGCAATCCTT	GCTATCTTCT	ATCTTGTAAT	TATCACACTT	TTGACTAGAC	2160
TAGCGAAACG	CTTAGAAAAAG	AGGATTTCGT	AATGGCAAAA	TTAAAAATTG	ATGTAAATGA	2220
TTTACACAAG	CACTATGGAA	AAAATGAAGT	CCTAAAAGGA	ATTACGACTA	AGTTCTATGA	2280
AGGAGATGTT	GTGTGTATCA	TCGGTCCTTC	AGGTTCTGGT	AAGTCAACTT	TCCTCCGTAG	2340
CCTCAATCTT	TTAGAAGAAG	TCACTAGCGG	TCACATCACT	GTGAACGGCT	ATGATTTAAC	2400
TGAAAAAACA	ACCAATGTTG	ACCACGTCGG	TGAAAAATATC	GGCATGGTAT	TCCAACACTT	2460
CAACCTCTTC	CCTCATATGT	CTGTATTGGA	CAACATCACC	TTTGCTCCTA	TTGAGCACAA	2520
GTTGATGACT	AAGGAAGAAG	CTGAGGAATT	GGGAATGGAG	TTGCTTGAAA	AGGTTGGACT	2580
AGCAGATAAA	GCTAATGCCA	ATCCAGATAG	CCTATCAGGT	GGTCAAAAAC	AACGTGTGGC	2640
CATCGCTCGT	GGCCTAGCAA	TGAATCCAGA	CATCATGCTC	TTGATGAAC	CAACTTCTGC	2700
CCTTGACCCT	GAGATGGTTG	GAGACGTACT	TAACGTTATG	AAGGAATTGG	CTGAGCAAGG	2760
CATGACCATG	ATTATCGTAA	CCCATGAGAT	GGGATTTGCT	CGTCAGGTTG	CCAACCGCGT	2820
TATCTTTACT	GCAGATGGCG	AGTTCCTTGA	AGACGGAACA	CCTGACCAAA	TCTTTGATAA	2880
CCCACAACAC	CCTCGTCTGA	AAGAGTTCTT	AGATAAGGTC	TTAAACGTCT	AAACTCAAAC	2940
TGTAAGGATT	TCCTTGCAGT	TTTCTACCT	CGTATTGGAA	TTTTTGATTT	TTCGGAAAAAT	3000
TATGTTAGAA	TTAAGTTTAT	GAAATGAGGT	TTCTCATAC	CTAGCAAGAC	TAGGAATAAA	3060
AATAGAAATT	AGGTAGCTAG	ATGTCATCTA	AGGTTATTGT	TACAATTTTC	GGTGCGAGTG	3120
GAGACCTGGC	TAAACGCAAG	CTCTACCCTT	CCCTTTT TAG	ACTATATCAA	TCCGGCAATC	3180
TTTCCAAGCA	CTTTGCCGTT	ATTGGAAC TG	CCCGTAGACC	TTGGAGTAAG	GAATATTTTG	3240
AATCTGTAGT	TGTCGAGTCC	ATCCTTGATT	TGGCAGATAG	TACCGAGCAA	GCCCAAGAAT	3300
TTGCTAGCCA	CTTCTACTAT	CAAAGCCATG	ATGTCAATGA	TTCGGAACAT	TATATTGCTT	3360

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TGCGTCAATT	ACAAGCTGAG	CTTAATGAAA	AATACCAAGC	TGAACACAAT	AAGCTCTTCT	3420
TCTTGCTCTAT	GGCACCTCAG	TTCTTTGGAA	CCATTGCCAA	ACACCTCAA	TCTGAAAACA	3480
TTGTGCGATGG	CAAAGGTTTT	GAGCGCTTGA	TCGTTGAAAA	ACCATTTGGT	ACAGATTACG	3540
CAACTGCAAG	CAAGTTGAAT	GACGAACCTC	TAGCAACATT	TGACGAAGAA	CAAATTTTCC	3600
GTATCGACCA	TTATCTTGGT	AAGGAAATGA	TCCAAAGCAT	CTTTGCAGTT	CGCTTTGCAA	3660
ACTTGATTTT	TGAAAACGTT	TGGAACAAGG	ATTTTATCGA	CAATGTTCAA	ATTACCTTTG	3720
CGGAGCGCTT	GGGTGTAGAA	GAACGTGGTG	GCTACTATGA	CCAATCCGGT	GCCCTCCGTG	3780
ACATGGTCCA	AAACCACACT	CTACAACCTC	TTTCGCTCCT	CGCCATGGAC	AAACCAGCAA	3840
GCTTCACAAA	AGACGAGATT	CGTGCTGAAA	AGATTAAGGT	CTTTAAAAAC	CTCTATCATC	3900
CAACTGATGA	AGAACTCAA	GAACACTTTA	TCCGTGGGCA	ATACCGCTCT	GGTAAGATTG	3960
ATGGCATGAA	ATACATCTCT	TATCGTAGCG	AGCCAAATGT	GAATCCAGAA	TCAACAAC TG	4020
AAACCTTTAC	ATCTGGTGCC	TTCTTTGTAG	ACAGCGATCG	ATTCCGTGGT	GTTCCTTTCT	4080
TTTTCGGTAC	AGGTAAACGA	CTGACTGAAA	AAGGAAC TCA	TGTCAACATC	GTCTTTAAAC	4140
AAATGGATT C	TATCTTTGGA	GAACCACTTG	CTCCAAATAT	TTTGACCATC	TATATTCAAC	4200
CAACAGAAGG	CTTCTCTCTT	AGCCTAAATG	GGAAGCAAGT	AGGAGAAGAA	TTTAACTTGG	4260
CTCCTAACTC	ACTTGATTAC	CGTACAGATG	CGACTGCAAC	TGGTGCTTCT	CCAGAACCAT	4320
ACGAAAAATT	GATTTATGAT	GTCCATAATA	ACAACTCAAC	TAACCTTAGC	CACTGGGATG	4380
AAGTTTG TGC	GTCATGGAAG	TTGATTGACC	GTATTGAAAA	GCTCTGGGCT	GAAAATGGTG	4440
CCCCACTTCA	TGACTATAAA	GCTGGAAGCA	TGGGACCTCA	AGCCAGCTTT	GACCTACTTG	4500
AAAAATTTCGG	TGCCAAATGG	ACTTG GCAAC	CAGATATCAC	CTATCGTCAA	GATGGTCGCT	4560
TAGAATAAAA	AAATTTCC TG	CAAGTTTATG	CcTTGCAGGA	TTTTTGCTTC	TGATTAGATT	4620
AAACCTTCCA	AGAGACCTTT	CATAAAGTTT	TCTGAGTTAA	ACTCTCCAAT	ATCATCGATT	4680
TTTTACCAA	AACCAATCAA	TTTTACAGGA	ATATTGAGTT	CTTCACGAAT	GGCTAGAACC	4740
ACACCTCCTC	GAGCAGTTCC	ATCAATCTTA	GTCAAAACAA	TTCCCGTTAA	AGGTGTGATT	4800
TCGAAAAATT	CTTTGGCCTG	TACTAGGGCA	TTTTGACCTG	TTGATGCATC	AAGTGCCAAG	4860
AAGGTTTCAT	GTGGTGCTTC	TGGCACAACA	CGTTTGATAA	TACGACCAAT	CTTTTCCAAC	4920
TCAGCCATAA	GGTTATCCTT	ATTTTG CAGA	CGACCAGCAG	TATCAATCAT	GAGAATATCG	4980
ATACCTTCAG	TCACGGCAGC	TTCCATACCA	TCAAAGACCA	CGCTGGCTGG	ATCAGCTTTT	5040
TCAGGTCCAG	TTACTACTGG	AACATCTACT	CGTCGGCCCC	ATT CAGCTAG	CTGAGCTACT	5100

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GCACCCGCAC	GGAAGGTATC	TGCTGCAACC	AGCATGACCT	TCTTACCAGC	TTGTTTGTAG	5160
CGGTGGGCTA	GTTTTCCGAT	AGAAGTTGTT	TTCCCAACAC	CATTACACACC	AACAAAGAGC	5220
ATAACTGTCA	AGTTATCTTG	GAAGTGGATG	CTTTCATCGT	AGCTACCATC	CTTTTCATAA	5280
AGCTCAACCA	ATTTCTCAAT	GATGACACGA	CGAAGTACAT	CAGGTTTCTT	GGCATTTTTCA	5340
AGCTTGGCTT	CGTAACGTAG	TTCTCCGTT	AAGTTAGAAG	CGACTTGGAC	ACCAACATCA	5400
CTCATAATCA	GCAGTTCTTC	CAGTTCCTCG	AAAAATTCCT	CGTCAACAGA	GCGGAAGTTA	5460
GCAAAGAAGG	CATTCAAGCG	GGCACCGAAA	CCTGTGCGAG	TTTTCTTAAG	ACTGCGGTCA	5520
TATTTTTCCT	GAACAGTTTC	TTCTGTTTGA	GGAGCTTCTG	GTTCAAGCAC	TTCAGAATTA	5580
TTTTCTTCTA	CAGTTCCTTC	GTGCTCAAGC	TTCTCTTCCT	CTGGTAATTC	TTCTGAGTTT	5640
GGTAATTCCT	CTATTTCTTC	TTGAGAAACC	CCTACAGCTG	GCTCTGAATC	CTGACTTTCT	5700
TCAACTGTGT	CTTGGATTTC	CTCTCTTGG	AACACAGCTT	GTTCAACAAT	TTCAACCTCT	5760
GCTTCTTCCT	GAGAACTTC	CTCAACTTCT	GTGAAGGTAG	GATCAACATC	TTCAGACAAA	5820
TCAAGATTTT	CCAGAGCTTC	TTTTACAAC	TCTTCGATTT	TAGGTCTTTC	TTTTTTTCCG	5880
AATAGACGGT	CAAACAATCC	CATATCTTAG	TTCTCCTTTA	GCACATATTC	TTCGATAGCC	5940
CAGGCGACAG	CTTCCTCATC	GTTGGTCATC	GGCGTCACTA	CATTTGCGGC	TGCCTTTACT	6000
TCAGGAACAG	CGTTTTCAT	AGCAACACCA	AGACCTGCCC	ATTCAATCAT	AGAGAGGTCA	6060
TTGGCCTCGT	CACCACAAGC	CATCACTTGA	CTTTGGTCGA	TTCCAAGATG	GCTGATTAGT	6120
TTTGCCAAAC	CTGTTGCTTT	ATGAACATTC	TTTGGTGACC	ATTCTAGCAA	CATTTACAGT	6180
GATTTAAAGA	TTTCATATTG	GTCAAACAAT	TCTGGAGAAA	TCTTCTGAAT	GGCTGCATCC	6240
AAGGGTTCTT	GAGCAAAGGC	AGTCACGCAT	TTGTTGTAGG	TCATTTGACT	AGATAAGTCT	6300
TCAAAGTCCA	CTGGAACAAA	GGTCAAAGCT	GGATTGAATT	TGGCATAAAG	ACTTCTTGG	6360
TCCGATTGGA	TTTGATAAAC	TGTTCCCTCT	GAGATGGCAT	CAAGAGGCAG	TGATAATTTT	6420
TCTGTTTCTT	CATACAAACG	TGCCACATCA	TCATATGAAA	AGACTGTTTT	ATCAAGGATT	6480
TCTCCTGTAT	TTTTCTGAAC	TAATCCACCA	TTAAAAGTAA	TGGTATACTC	ATCTTCCTGA	6540
CCGTCAGTCC	CTAACTCATG	GAGAAAGAAA	TCCATGGCTT	TTAAGGGACG	ACCAGTTGTC	6600
AATACGACCT	TGATACCACG	ATCACGCGCA	gCTTGCAAGG	TTTCCTTGGT	ACGATCCGTC	6660
AGCCTTTTAT	CAGTAGTCAG	CAAGGTCCCG	TCCAAGTCCA	ATGCAATCAA	TTTTATATCT	6720
GCCATTATAA	GCCCTCCATA	TAAGCTATAA	CCGACCGTTC	CTTATGGTGA	CCAATCACAG	6780
TCTTTGCTAA	TTCTAAAATT	TCAGGTCGTG	CATTTTCAGG	AGCTACAGGA	TGTCCACAAA	6840
CCTGCATCAT	ATGTAAGTCA	TTAAGATTGT	CTCCAAAAGC	CATGACCTGA	TCCATTGTGA	6900



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TACCAAGTTT	TTTAACTAAT	TCAACAATGG	CCACTCCCTT	ATCGACATAG	TCCAGAACAA	6960
TATCAATGGA	TTCAAAGCCA	GTTGTCATGG	CCTTAACACC	AGGAACGTTT	TCGTTTACCC	7020
AAGCCTCCCC	ATCTTCCAGC	GTTTCTTCTG	TGAAGTTGGT	TGTAAATTG	AAAATGTCAT	7080
CTGTGATATC	TTCCAAACTC	GCTACTTTTT	GGATATTTTC	ATTATAGTGC	TGACTCACTT	7140
TCAAATAGGT	CTCATCAACC	GTATCTAGAA	CATATGAACC	CTTCTTACCC	GTCAAGAGCA	7200
GTTTATTGAT	ATCTACATAA	GGTGAAGTTT	TCAGCTTTTC	AAAAGTTGCC	AGATAAAAGT	7260
CACGAGACAT	AGTCGCTTCA	TACAAGTCCT	GACCTTGATA	CTCTACCAA	CTGCCATTTT	7320
CCCGCATGAA	AATAATGTCA	TCACGAACAC	CAGCAAATAA	TTTTTCTAGA	GACAGAAATC	7380
CCCGACCCGA	AGCTACCGCA	AAGTAAATCC	CTTTTTCCTT	GTAGGAAACC	AAGAGAGACT	7440
TGAGACGATC	CATATCAAAG	CGTCCATTCC	CATCTAGGAA	GGTCCGTCC	ATATCCGTTG	7500
CTACTAGTTT	AATTGTCATC	CTCAATACT	TTCTAAATCT	TTTAACTTAA	CTGAAACAA	7560
CTTTGAAACA	CCCGATTCTT	GCATGGTCAC	TCCATAGATG	GAATCAGCCG	CTGCCATGGT	7620
TCCCTTACGG	TGGGTACGA	CGATGAACTG	GCTGTCCCTG	TCAAAGCGGT	TGAGGTAATC	7680
CCCAAACGT	TTAACATTGG	CTTCATCCAG	CGCAGCTTCC	ACCTCATCCA	AGATAACAAA	7740
TGGAATAGTC	TTGACACGAA	TAATGGAGAA	GAGCAAGGCA	AGAGCCGATA	GGGCTTTTTT	7800
ACCACCACTC	ATGAGATTAA	GAGACTGGAT	TTTCTTGCCT	GGTGGTTGGA	CAGAAATTTT	7860
AACCCCAGCT	GTCAGCAAGT	CTCCTTCAGT	CAAAATGAGG	TCAGCCTGAC	CTCCACCAAA	7920
CATCTGCTTG	AAGGTCACCT	TAAAGGACTC	ACGAATGACC	TCAAAGGTTG	ATTTAAAGCG	7980
TTCCCTTGACC	TCATCATTCA	TCTCTGTAAT	GGTCTCAAGG	AGCAGGTTTT	TCGCAGACAA	8040
AATATCATCA	CGTTGGCTAT	TTAGGAAATC	CAGACGGTTG	TGAACTTCTT	CGTACTGTTC	8100
AATAGCGTCT	AAATTGACAG	GACCCAGTGA	GCGTATAGCC	TTCTCTAAAT	CCTTAACTTC	8160
TTGCTCTGCC	AGATTGAGAT	TTTCCAACTC	ATGCGCCTTT	TCTAAAGCTT	CTGTGTAGCT	8220
GATCTGGTAC	TGGTCTGTTA	ATTGACTTTG	TAGATGGCGC	AAGCGCTCGC	TAACCTTTTC	8280
TTTCTTGGCT	TCAGCACGAG	TTTGCTTGCG	AATCCACTCT	TCATTCTGCT	GGCGAGCCTG	8340
ATCCAAATGA	CTAGCAATAT	CATCCAGTTG	ACCCTCAATA	TCATCCAAC	CAAACTGCTT	8400
GCGAATCAAA	CCTTGTGGA	GATTTGTTTT	TTGAGTTTTG	GATTCTTCCG	CCTGTTGACT	8460
GAGCAATTCT	GTATCAACCT	TCTCAAGATT	ATCAATCTTT	TCTTGAAGAA	GGCGCTGGAT	8520
TTCCCTCTGT	TCAAAATCAA	GATTGTCCAA	TTCCCTTGCT	AAGCGTTCAA	TATCAGCAAC	8580
TTCATAACGT	TTTTCGCCCT	GCAGTTCTGT	CTTAAGCAAA	CGAGCTTGCG	CTAGCTCTTC	8640

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CTGCAAGTTT	TGATAGCGTT	CTTGATGGC	ATTTTGTGTTA	GACTTAATCT	CTTCAATCTC	8700
AGCTTCCAGA	TTTTGCTTGT	CACTGGAGAT	TGCAGCAAGA	CGCTCTTGGC	AGTTTTCCTT	8760
ATCCGCTTGC	CAATCTCCCT	CGGAAAGACG	ATCTATTTCC	TCTTCTTGGA	GTTTCCAAAG	8820
AGTTTCCAGT	TCTTCAACTT	GCTGACTAGT	TTGCTGATAA	GCGAGGAACA	AGCCTTGCTC	8880
CTGAATACGT	GCCTGCTCTC	CTTGAGATTT	AATAGCTTCT	AATGACTCGG	TCAATCTGGC	8940
CATCTCATCT	TGCAAGGTCT	TCAAAGTCGC	CTCTTCTGAA	CCCAAGCTTG	CTTCTTCTTC	9000
AGCAATTTCT	TTTTGTAATT	GCTCCAGTTC	TGGCTTGATA	AAAATGCTGT	TATTCTGGCG	9060
ATTGGCACCA	CCTGCATAAG	AACCACCTGT	GCGCAACTCT	GTCCCATCCA	ATGTCACCAT	9120
ACGAACCTGA	TAACGAAGT	GGCGAGCTGC	TGCACGCGCA	TGTTCTACGG	TATCAAAGAT	9180
AGCCGTCGTA	GCTAGCAAGT	TCTTGAAAAT	GGCTTCCAGT	CTAGTATCAA	AAGTCACCAA	9240
CTCATCTGCC	ATCCCAAGGA	AACCTGGGCT	TACAGCGATA	GCATCTTGGT	TCTGACTAGA	9300
AATCGTACGC	GCCTTGATAG	TGGTCAAAGG	AAGAAAGGTT	GCACGACCGG	CTCTGTTCGG	9360
TTTAAGGAAG	TCAATAGCCT	TGGTTGCCGA	CTCTTCATCT	TCTACGATGA	TATGCTGGCT	9420
ACTTGCCCCCT	AAGGCAATCT	CTAGGGCAGT	TTGATAATAA	ACATCAAAGG	TCAGATGCTC	9480
ACTGACTGCA	CCAATAATCC	CACCTAGGCG	ATCTTTTCT	TGGAGAACAC	TCTTAACACC	9540
TGCATAAAAG	TTACTATGAT	TTCTCAGGAT	ATTTTCCAAA	CTTTGAGCTC	TGGCCTGCTT	9600
GTTTTTGAGA	TTATCCAGAC	GGTCAAAGAG	TTGGCTTTGT	TGAGCTTGAT	AGGAAGTTTT	9660
CTGCTCCTCT	TGCTCCTTGG	CAATAGCTTG	GTAGTCAGCC	AATAATTCT	GAACCTGCTC	9720
CTTGGCAGTT	TCAAGCTCTT	CCTTTTGCTG	ACTAGCCTTC	TCTTTAGCTA	TAGCTAATTG	9780
CTCTTTCAGC	TTTTCTAGTT	GATCTGCTTG	TTTTTGAGAA	AGCTGACGAC	TATTTTCCAA	9840
CTCATTTCTCA	ATACGGGTCA	ACTGGTTTGA	GACATCCGCT	TCTTCTTGTA	AAAGAGCTAC	9900
AAAGCGTTCA	CGTAAGAGCT	CAATCATCTG	ATCAGGATCG	TCTGAGAAAG	CCAGCAATTC	9960
AGCTTCTAAA	CGATTGAGTT	TTTGATTATT	TTGGACTAGA	TTTCCCTCTA	ACAGAGCTAA	10020
AGAGCTTTCT	TTATCAGACT	TTTCTTTGCT	GAGTGAATTT	CTCTTATCCT	CCAAAGCAGC	10080
CAAACGGGCT	TGTGCCTCCT	GTTGATTCAA	GGCCACTTGC	TCGGACTCCA	GTTTCGATAG	10140
GGCTAATTTT	CTTTCTAAAT	CACTAATCAG	ACTAGTCAAG	TCCATCAAAC	TGCCTTGGTC	10200
TTTGCCATT	TCAGCCTGTA	AATCTTGGCG	TTGCTTTTGA	AGAGTTTGAT	TTTCTTCTTC	10260
TAATTTTTC	CGCTTTTGGT	AATAACTCAT	CAAGAGTTCT	TGAACCTGAG	TCAACTCTTC	10320
TTCTGTCGAC	TCTAGTTCAG	CCTTATTTTC	CTTGATTTGA	GCAACCAGAA	CATCTAAATA	10380
AATAGCCTTA	CGTTGTCCTT	CCAAGTCTAA	AACTTACGG	GCATTCTCAG	CTTGCTTCTC	10440

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AAGAGGCTTG	ATTTGATTAT	CCAACCTCGTA	GATAATGTCC	TCTAAGCGGT	CCAGATTATC	10500
CTGAGTTTGC	TGCAGTTTAC	TCTCGGTTTC	TTTCTGCGA	GTCTTGATTT	TTAAACTCC	10560
AGCAGCTTCT	TCAAAAATAG	CTCGTCGTTC	CTCAGGCTTG	GAATTAAAA	TCTCCTCAAC	10620
CTTCCCTTGG	GAAATAATAG	AGAAGGAATC	TCGTCCCAAT	CCAGTATCCA	AGAAGAGGTC	10680
ATGAATATCA	CGCAGACGGA	CTTCTTGCC	GTCAATCTTG	TATTCGTAT	CTCCACTACG	10740
ATAGACATGG	CGTTCACCC	TGATTTCTTG	ACCTGCATCC	TTGATAAATC	CGTCATGATT	10800
ATCCAGAGTC	ACAACCTACAG	AAGCATAATT	GAGCGGTTTG	CGACTTTCGG	TTCCAGCAAA	10860
GATGATATCC	GGCATCTTGC	CCCCACGGAG	ACTCTTGACA	CTAGACTCCC	CCAAAGCCCA	10920
ACGCAGACTT	TCTGTAATAT	TGGACTTTCC	AGATCCATTG	GGTCCAACAA	CTGCCGTCAC	10980
ACCTTGGTCA	AAAACGACCT	TGGTCTTATC	AGCAAAAGAC	TTGAACCCCT	GAATTTTCGAT	11040
TTCTTTTAAA	TACATGAATC	CAGCCCCCTC	TCAACGGCAT	TTTTCGGCAGC	TTCTTGCTCT	11100
GCTAATTCTT	TAGAACGACC	TTGGCCTTGA	CCGATGCTCT	TACCTTCAAC	AAGAATTCTT	11160
ACATCAAAAA	CCTTATCGTG	AGCAGGCCCT	GTTTCAGAAA	TCACCTGATA	ACGAATAGCC	11220
ACATCACCAT	TGACCTGAAG	CAACTCTTGG	AGATGGGTTT	TATAGTCTGT	AATCATCTCA	11280
AACCTCGCCTG	CTTCAACCTT	AGGAATCATG	ACTTGATAGA	TAAATTCCTT	GACCTTGCC	11340
ACATCCTTAT	CCAAAAGAAG	GGCACCAAGA	AAGGCTTCAA	AGGCATCACC	AAGAATGGTG	11400
TCACGATTGC	GACCACCTGA	TTTTTCTTCC	CCTTTACCCA	ACTTGATAAA	CTGGTCAAAC	11460
TGGCAATCAC	CGCAAAACC	AGCTAAACTC	TCCTCACGGA	CAATCATAGC	ACGGAGTTT	11520
GATAGGTCAC	CTTCAGGCTT	TTTAGGATAT	TTTTTATATA	GATATTCTGA	AATCAATAAC	11580
TGTAGAACAG	CGTCTCTAA	AAATTCCAAG	CGTTCATTGT	GTGAAATTTT	TAAGAGGCGG	11640
TGCTCATTTG	CATAACTCGT	ATGAGTAAAG	GCAGTTTCCA	GTAACTTTTT	GTCTGCAAAT	11700
TCGATTGCAA	AATGATTCTT	TAGTACAGTT	TGTAATTCTT	TCATACCAAC	CTCTTTCTAA	11760
CTGATAATAG	TCCTTTTAT	TATATCAAAA	AAAGCCCCTT	GAGTCACTCT	AAAACGGGAC	11820
TGGAAAGCAT	TTGGGAATTC	TTTAGACAGA	GATTCTCAGT	TTTAGCGGCA	AATTTGGGTC	11880
AGGATAAAGA	AAAAAGCCCT	ATTAAAGGCT	TTTAGGATG	TTTACATCCA	CCCTGAGGGA	11940
ATCGAACCCC	CATCTCAAGA	ACCGGAATCT	TACGTGATAT	CCATTACACT	AAGGGTGGAA	12000
ACTTGTTTTA	TTATAACAGA	AATTTGCTCT	AATAACAAGT	TTTTTGGTCA	AAGACCCCGT	12060
CTTAGTGGGA	AGCATCCCCA	TTCCAGATGG	AGTTTTTCAC	GATCACATAA	TCAACGTGTT	12120
TAAGGTCAGC	AACCTGACGT	CCACCTGCAT	AAGAAATAGC	ACTTTGAAGG	TCTTGTTCCT	12180

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TCTCAGTTAA AGTGTCTTGC AGATGACCTT TAGCAGGAAG CAAGATACGT TTGCCTTCCA	12240
CATTTTTGTA AGCACCTTTT TGATATTGTG AGGCTGAACC ATAATATTCT TTGAACTGTT	12300
CACCATCGAC TTCAATCGTT TTCCCTGGAC TTTCAATGTG TCCTGCAAAG AGGGAACCAA	12360
TCATGATCAT GCTAGCACCG AAGCGGATAG ACTTAGCAAT ATCACCCTGA GTACGAATTC	12420
CTCCATCAGC GATAATCGGT TTACGCGCAG CCTTGGCACA CCAGCGTAGA GCAGCCAACT	12480
GCCAACCACC TGTACCAAAA CCAGTCTTAA CCTTGGTGAT ACAAACCTTA CCAGGACCGA	12540
TTCCGACCTT AGTAGCATCC GCACCAGCAT TTTCCAATTC ACGCACAGCT TCTGGTGTTC	12600
CCACATTTC AGCAATGACA AAGGTATCTG GCAATTCTTT CTTGATGTGT TGAATCATAG	12660
AAATCACGCT ATCCGCATGA CCATGAGCAA TATCAATAGT GATATACTCA GGAGTATCAG	12720
CCTTGAGCTG GCTAACAAAA TCATACTCAT AATCCTTAAC ACCGACAGAG ATAGAAGCAA	12780
TGAGCCCTTG ATTGTGCATT CGTTTAATAA AAGGAATGCG TCCTGCCTCA TCAAAACGGT	12840
GCATAATGTA GAAGTAACCA CCTTTAGCCA GTTGCTCTGC TACATTTTCA TCCAAAATCG	12900
TCTGCATATT CGTGGCACA ACAGGTAGTT TAAAGGTGTG ATTTCCATAA GTGACACTTG	12960
TATCCGCTTC TGCACGGCTT TTAATGACAC ATTTATTTGG AATCAATTGA ATATCTTCGT	13020
AATCAAAAAT TGGAAATTCA TTAAACATAT CGATGTCTCG TTTCTTTTGT AATGACCTAC	13080
CTATGCTCTT GCATCACTAC GCCTTTTCCG ACGTTTCCTG G	13121

(2) INFORMATION FOR SEQ ID NO: 127:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9578 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 127:

CCGAATGCAA TGTTTACGGT TGAACCTGAA AATGGACATC AGATTTTAGC AACAGTTTCT	60
GGTAAAATTC GTAAAACTA TATTCGTATT TTAGCGGGAG ATCGTGTTAC TGTCGAAATG	120
AGTCCATATG ACTTGACACG TGGACGTATC ACTTACCGCT TTAAATAATC GAAAAACTTG	180
GAGGGATAAG AAATGAAAGT AAGACCATCG GTCAAACCAA TTTGCGAATA CTGTAAAGTT	240
ATTTCGTCGA ATGGTCGTGT TATGGTAATT TGCCCAGCAA ATCCAAAACA CAAACAACGT	300
CAAGGATAAG ATAGAAAGGA GAAAACATGG CTCGTATTGC TGGAGTTGAT ATTCCAAATG	360
ACAAACGCGT AGTAATCTCA TTGACTTATG TTTATGGTAT CGGACTTGCA ACATCTAAGA	420
AAATTTTGCC TGCTGCTGGA ATCTCAGAAG ATGTTTCGTGT ACGTGATCTT ACATCAGATC	480

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AAGAAGATGC TATCCGTCGT GAAGTGGATG CAATCAAAGT TGAAGGTGAC CTTGTCGTCG	540
AAGTAACTT GAACATCAAA CGTTTGATGG AAATCGGTTC ATACCGTGGT ATCCGTCACC	600
GTCGTGGACT TCCTGTCCGT GGACAAAACA CTA AAAACAA CGCCCGCACT CGTAAAGGTA	660
AAGCTGTTGC GATTGCTGGT AAGAAAAAAT AATATAGGAG GTAAAAGTCT TGGCTAAACC	720
AACACGTAAA CGTCGTGTGA AAAAGAATAT CGAATCTGGT ATTGCTCATA TTCACGCTAC	780
ATTTAATAAC ACTATTGTTA TGATTACTGA TGTGCATGGT AATGCAATTG CTTGGTCATC	840
AGCTGGTGCT CTTGGTTTCA AAGGTTCTCG TAAATCTACA CCATTGCTG CTCAAATGGC	900
TTCTGAAGCT GCTGCTAAAT CTGCACAAGA ACACGGTCTT AAATCAGTTG AAGTTACTGT	960
AAAAGGTCCA GGTTCCTGGTC GTGAGTCAGC TATTCGTGCG CTTGCTGCCG CTGGTCTTGA	1020
AGTAACAGCA ATTCGTGATG TGA CTCCAGT GCCACACAAT GGTGCTCGTC CTCCAAAACG	1080
TCGCCGTGTA TAATCATCGC ATTACACTGC TTTTCGTTTA AGAGGGAGTA ACTAAATGAT	1140
CGAGTTTGAA AAACCAAATA TAACAAAAT TGATGAAAAT AAAGATTATG GCAAGTTTGT	1200
AATCGAACCA CTTGAACGTG GCTACGGTAC AACTCTTGGT AACTCTCTTC GTCGTGTACT	1260
TCTAGCTTCT CTACCAGGAG CAGCTGTGAC ATCTATCAAC ATTGATGGTG TGTACATGA	1320
GTTTGACACA GTTCCAGGTG TTCGTGAAGA CGTGATGCAA ATCATTCTGA ACATTAAAGG	1380
AATTGCAGTG AAATCGTACG TTGAAGACGA AAAAATCATC GAACTGGATG TTGAAGGTCC	1440
TGCTGAAGTA ACAGCTGGTG ACATTTTGAC AGATAGCGAT ATTGAAATG TAAATCCAGA	1500
TCATTATCTC TTTACAATCG GTGAAGGTTT TTTCTAAAA GCGACTATGA CTGTTAACAG	1560
TGGTCGTGGA TATGTACCTG CTGATGAAAA TAAAAAGGAT AATGCACCAG TTGGAACACT	1620
TGCTGTAGAT TCTATTTATA CACCAGTTAC AAAAGTCAAC TATCAAGTGG AACCTGCTCG	1680
TGTAGGTAGC AATGATGGTT TCGACAAATT AACCCTTGAA ATCTTGACAA ATGGAACAAT	1740
TATTCCAGAA GATGCTTTAG GGCTTTCAGC ACGTATTTTG ACAGAACATC TTGATTTGTT	1800
TACAAATCTT ACTGAGATTG CTAAGTCAAC TGAAGTGATG AAAGAAGCTG ATACTGAATC	1860
TGACGACCGT ATTTTAGATC GTACGATTGA GGAAGTGGAC TTGTCTGTGC GTTCATACAA	1920
CTGTTTAAAA CGTGCCGGTA TCAATACTGT GCATGATTG ACAGAAAAAT CTGAAGCAGA	1980
GATGATGAAA GTACGAAATC TTGGACGCAA GAGTTTGGA GAAGTGAAAC TCAAACATCAT	2040
TGATTTGGGT CTTGGATTAA AAGATAAATA AAGGAGGAAT ACATGGCTTA CCGTAAACTA	2100
GGACGCACTA GCTCACAACG TAAAGCAATG CTTGCGGATT TGACAACTGA CCTTTTGATC	2160
AACGAATCAA TCGTGACAAC TGAAGCTCGT GCTAAAGAAA TCCGTAAAC TGTGAAAAA	2220

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ATGATTACTC TAGGTAAACG TGGTGATTTG CATGCACGTC GTCAAGCAGC TGCTTTCGTA	2280
CGTAATGAAA TCGCATCTGA AAACATGAT GAAGCAACTG ATAAGTACAC TTCTACTACA	2340
GCACTTCAAA AATTGTTCTC AGAAATCGCA CCTCGTTATG CTGAACGTAA CGGTGGATAC	2400
ACTCGTATCC TTAACACTGA ATCACGTCGT GGTGATGCAG CGCCAATGGC GATCATCGAA	2460
TTAGTATAAA ATCATCAATT TTGTGAGTG TTATGATGAT GGAGTCTTGT GCTCTTAGTC	2520
TAGCTCTGGT CTACCGCTAG GATTTCGGTC CTAGCGGAA CACTCATCAT AAGTTGGGAT	2580
AGTAGACGCT TGTTTACGAA ATTGTTTTTT TCTTAAGAAC AACTTCGTAA GCAGGCGTTT	2640
TTGAGTATTT TCGTTAGAAT TATGCTATAC TATTTGAAAA GAATCCTGTT TAATGTAAAG	2700
GTTTCTTATT TTAAGAAGAA TTGGAGTTTA CTTATGAAAG CCATTATAAC TGTTGTTGGT	2760
AAAGATAAAT CTGGAATTGT TGCAGGTGTT TCTGGTAAAA TTGCAGAATT AGGATTGAAT	2820
ATTGACGATA TCTCTCAAAC TGTCTTGGAT GAATATTTTA CGATGATGGC TGTTGTATCT	2880
AGTGATGAAA AGCAAGATTT TACCTATCTT CGTAATGAAT TTGAAGCTTT TGGGCAAACT	2940
TTGAATGTAA AAATCAATAT TCAGAGTGCA GCGATTTTCG AAGCTATGTA TAATATCTAG	3000
GAGGTCATCA TGGATATTAG ACAAGTTACT GAAACCATCG CCATGATTGA GGAGCAAAAC	3060
TTGATATTA GAACCATTAC CATGGGGATT TCTCTTTTGG ACTGTATCGA TCCAGATATC	3120
AATCGTGCTG CGGAGAAAAAT CTATCAAAAA ATTACGACAA AGGCGGCTAA TTTAGTAGCT	3180
GTTGGTGATG AAATTGCGGC TGAGTTGGGA ATTCCTATCG TTAATAAGCG TGTATCGGTG	3240
ACACCTATTT CTCTGATTGG GGCAGCGACA GATGCGACGG ACTACGTGGT TCTGGCAAAA	3300
GCGCTTGATA AGGCTGCGAA AGAGATTGGT GTGGACTTTA TTGGTGTTT TTCTGCCTTA	3360
GTACAAAAAG GTTATCAAAA GGGAGATGAG ATTCTCATCA ATTCCATTCC TCGCGCTTTG	3420
GCTGAGACGG ATAAGGTCTG CTCGTCAGTC AATATCGGCT CAACCAAGTC TGGTATTAAT	3480
ATGACGGCTG TGGCAGATAT GGGACGAATT ATCAAGGAAA CAGCAAATCT TTCAGATATG	3540
GGAGTGCCCA AGTTGGTTGT ATTCGCTAAT GCTGTTGAGG ACAATCCATT TATGGCGGGT	3600
GCCTTTCATG GTGTTGGGGA AGCAGATGTT ATCATCAATG TCGGAGTTTC TGGTCCTGGT	3660
GTGTGTAAAC GTGCTTTGGA AAAAGTTCGT GGACAGAGCT TTGATGTAGT AGCCGAAACA	3720
GTTAAGAAAA CTGCCTTTAA AATCACTCGT ATCGGTCAAT TGGTTGGTCA AATGGCCAGT	3780
GAGAGACTGG GTGTGGAGTT TGGTATTGTG GACTTGAGTT TGGCACCAAC CCCTGCGGTT	3840
GGAGACTCTG TGGCACGTGT CTTGAGGAA ATGGGGCTAG AAACAGTTGG CACGCATGGA	3900
ACGACGGCTG CCTTGGCCCT CTTGAACGAC CAAGTTAAAA AGGGTGGAGT GATGGCCTGC	3960
AACCAAGTCG GTGGTTTATC TGGTGCCTTT ATCCCTGTTT CTGAGGATGA AGGAATGATT	4020

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GCTGCAGTGC	AAAATGGCTC	TCTTAATTTA	GAAAACTAG	AAGCTATGAC	GGCTATCTGT	4080
TCTGTTGGAT	TGGATATGAT	TGCCATCCCA	GAAGATACGC	CTGCTGAAAC	TATTGCGGCT	4140
ATGATTGCGG	ATGAAGCAGC	AATCGGTGTT	ATCAACATGA	AAACAACAGC	TGTTTCGTATC	4200
ATTCCCAAAG	GAAAAGAAGG	CGATATGATT	GAGTTTGGTG	GTCTATTAGG	AACTGCACCC	4260
GTTATGAAGG	TTAATGGGGC	TTCGTCTGTC	GACTTCATCT	CTCGCGGTGG	ACAAATCCCA	4320
GCACCAATTC	ATAGTTTAA	AAATTAAGAA	AATAGGAGAA	ATTTTAAGTT	CTATTTAAGA	4380
TTAGACGTGT	ATACTATAAT	CATTAAATA	AGACCTCCTA	ATATTATTTG	AAACAGATAA	4440
CACTGAATTA	GTTTGAATTT	GATTTTCATC	TAATATCTTT	ATTTAATGAA	CTCCTAAACT	4500
TTTTCATAAT	AATCTCCTTC	AAAAGTCGCC	TGTATGGGTG	GCTTTTATTT	TATCATTCAT	4560
GATATAATAG	AAGCAAACGG	AGGACGGAAA	ATGGTAAAAG	TACGATTGTA	TTTGGTACGT	4620
CATGGCAAGA	CCATGTTTAA	CACGATTGGT	CGCGCGCAAG	GTGGAGCGA	TACTCCCTTA	4680
ACTGCTGAAG	GTGAACGAGG	GATTCAAGAG	TTAGGAATCG	GTTTGCGAGA	ATCTGATCTA	4740
CAGTTTGAGC	GTGCTTATTC	GAGTGATTCT	GGTCGTACCA	TTCAGACCAT	GGGAATTATC	4800
CTTGAAGAAC	TTGGCTTGCA	GGGGGAAATC	CCTTATCGCA	TGGACAAGCG	TATCAGAGAA	4860
TGGTGTTTCG	GTAGTTTGA	TGGAGCCTAT	GATGGCGATC	TTTTTCATGGG	CATTATTCCT	4920
CGTATCTTTA	ATGTGGACCA	CGTTCACCAA	TTGTCTTATG	CTGAAGTGGC	TGAGGGCTTG	4980
GTAGAGGTGC	ATACAGCTGG	TTGGGCTGAA	GGCTGGGAAA	AACTCAGTGG	CCGAATCAAG	5040
GAAGGCTTTG	AAATGATTGC	AAAAGAAATG	GAAGATCAAG	GTGGAGGTAA	CGCCCTTGTT	5100
GTCAGCCATG	GAATGACTAT	TGGAACCATT	GTTTATCTGA	TTAATGGCAT	GCATCCGCAT	5160
GGTCTGGATA	ATGGTAGCGT	GACAATCCTT	GAATATGAGG	ACGGCCAGTT	TAGGGTTGAA	5220
GTTGTCGGTG	ACCGTAGTTA	CCGAGAGCTA	GGACGTGAGA	AGATGGAAGA	AGGCTCTATT	5280
TAATCAGTCT	AGACTTGCTT	GCCATGAGCT	AGGGATTGTA	TAAGAATATC	AAGATAAGAA	5340
AAAACAGCCG	AGGGCACTCC	TTTCGGCTGT	TTTTGATGTG	GAAAACTAAA	GTGTAATGCT	5400
ATTGCTTTTA	GAGATTTTCA	TAAACAAGAG	CAAGGAACCT	ACTGTTAGAA	CAGTCAGGAT	5460
AGTTGACAAG	GTTGCGGCTA	CACCGTAATT	TCCTCTGAGA	ACCTCTGTAT	AAATAGCTAC	5520
AGTCATTGTT	CTTGTTTTGA	CATTGTAGAG	GAGGATAGAA	GTAGAGAGTT	TTGAAATCAT	5580
TGTGACTCAA	GATAAGATGG	CTCCAGAAAT	GATACCAGAT	AGCATCATTG	GAGTTGTAAT	5640
CTTAGCAAAG	GTATTGAGAC	GACTACTTCC	TAAGCTTTCA	GCAGCTTCTT	CAATACTTGG	5700
TGCTATTTGT	TGTAAGCTAG	CAACAGATGA	GCGAATAGTA	TAAGGTAATC	TTCTGGCAGA	5760

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TAGAGACATA	ATCAAGATGA	AAGCAGTCCC	TGTAATCATA	AGAAATCCAC	TTCCAAATAG	5820
ACCAGTATTG	AAGGAAGAAA	TGAAGGCAAT	CCCTAGAACG	G TTCCTGGTA	CAATATAAGG	5880
TACCATACTG	AGGCTGTCAA	TTAAGTTTGT	AAACAAATTC	CGTTTTCTAA	CGGCTAGGTA	5940
GGAGATAAAT	GTCGCAAATA	GAACAAC TAG	AACTAAGGCA	ATCAAAGGGA	TACGAATGGT	6000
ATTGAAAATA	GCAGATCCCA	TACGATGGAA	AGCTACCTTG	TAACTGTTTG	GAGAATAACC	6060
TTTAACAGAT	ACCATACCTG	ATGTTTTTAG	GAAAGAGGTA	TAAATTAAGT	AGATTTGAGG	6120
TAAAACAGAG	ATAAAGATAA	TTCCGTAGAC	TGTTGCATAA	ATGGCAGCCA	TTTTTCCTTT	6180
TGTAGTTTTT	TTAGGCTCAA	TTGGATGGAG	CAGATTCATG	CTGAAACTGT	AGCGGTTTGC	6240
AATGTGTTTT	TGGATAAGGA	AAATTGCCAA	GGCAATGATA	ATCGCCATAA	TTGCAAAAGC	6300
AGAATTTTCCT	CCAACCTCGC	TAATAAATTG	GGTATAAATC	AGGACAGGGA	AAGTCCGATA	6360
CCCTTCGCCA	ATCAACATAG	GCGTTCCAAA	GTCTGAGAAT	GCTCTCATAA	ATACAAGCAA	6420
GGAGCTGCTA	GTAAGGTTGG	AACTAGGAGA	GGTAAAACAA	CCGTTACGAT	AGGTTTAAAT	6480
CCGAAGGACC	CCATGCTTTC	AGCTGCTTCA	AGTAGAGAAT	TGTCAATACT	GTTCATTGTT	6540
CCAGCAACAT	ATAGAAATAC	CAGTGGGAAT	AGTTGCAGTG	TAAAGACAAG	TACAATTCCCT	6600
TTGAATCAAT	AAATATCGAT	AGCTGGAAGA	TAAAGGGCAT	TTGTCAAAAA	TTTAGTGATG	6660
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GAAGCAATGA	TAATCAATAT	TTGTAGAAAT	TTCTTCCCCT	TGAAGTCATA	CATAGAGAAG	6780
AGATAAGCTA	ATAGGGTTCC	TACAAC TAAG	GAAGTGATAG	TAGCGGTAAT	GGAAACCTTG	6840
AAACTGTTGA	CTAGTGTCTC	AGAGTAGTAG	GCTTTACTAA	AGAAAGTGAC	AAAATTAGCT	6900
AGTGAGAATT	GTCCTTCATG	TATAAGTGCT	TGCTTGAGCA	CGGTAACGAT	AGGATAAACG	6960
AGAAAGATAG	GATAGGTAAG	AAAGAGGAAG	AAAGAGGAAA	CTGTCCAAAT	ATTTAGTTTT	7020
TTACGTTCCT	TGGTTGACTC	CTTTTATCAG	GTTTTGGGAA	CCATCTGCAG	AAAAGATGTT	7080
TAATTTTTCG	GTATTGATTC	G TAGACGAAT	ACGATTGCCT	TTTTGTAGAT	CTTCTTCAAA	7140
AGTTGATTCT	TCAC TAACTT	GAATTTT TGA	GGCAAAACCT	GTCTCAATGA	AATAATCCGT	7200
ATTTAGTCCA	AGATAGACGC	TATCTCTAAT	AGTTCCTTCA	ATATCTCCAG	ATTCATCTTT	7260
GATAAACTCT	TCGGGACGAA	TGCTTACATG	AATAGCTTGC	TCCTCAACCT	GATCAAGAGC	7320
TGGCATTCGA	AGGGCATAGC	CATCTGAAAA	GACGATATAA	GCGCCGTCGC	TCCGTTTTTC	7380
AAGATTGGCA	GGGATAATAT	TTGTGCGTCC	GATAAAGGTT	GCCACAAACT	CATTAGCTGG	7440
TTTATGATAG	AGTTCTTTTG	GTCGGCCGAT	TTGTTGGATC	ACCCCATCTT	TCATAACAGC	7500
AATTTGGTCT	GAAATAGCCA	TGGCTTCTTC	TTGGTCGTGG	GTTACATAAA	CAGTTGTAAT	7560



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TCCCACTTCG	TGTTGGATTT	CTCGGATGGC	TTGACGCATA	TCCAAGCGAA	GTTTGGCCTC	7620
CAGATTACTA	AGTGGCTCGT	CCATGAGGAG	AACACTTGGA	TTAACCGCTA	AGGCGCATGC	7680
CAAGGTGACA	CGTTGTTGTT	GTCCACCACT	GAGTTTATCG	GGCTTTCGAT	CCGCATATTG	7740
AGCAATTTGC	ATGAGTTCAA	GATACTTGTT	GGTCTGTTGA	ATCAATTCTT	CTTTTGGAAC	7800
CTTCTTTTGC	ATAAGACCAA	AAGCAACGTT	GTCTCGGACA	GTCAAATGTG	GGAAAATAGC	7860
GTAGTTTTGG	AAAACCATCC	CGATATTGCG	TTTGCTGGGT	TCCATATTAT	TGATTTTTGT	7920
ATCATCGAAG	TAAAATTCTC	CACCTTCGAT	ACTGTTGAAA	CCTGCAATCA	TACGAAGAAG	7980
GGTCGTTTTC	CCACATCCTG	AAGCTCCAAG	AAGGGTAAAG	AGACTTCCTT	TTGGAATTGT	8040
AATGTTCAAA	TTCTCAATAA	CAGGGACATC	GTGGTAGATT	TTTTTGGCGT	TAATAATTTT	8100
GATCTCACTC	ATAGTGAACC	TCTTTTACTG	TTTAGATTGG	ATATCTGTAA	AGACTTCGTT	8160
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TTTGATTTTG	TCAATTGGTT	TCATGTTTTC	GCTTGTTTTA	GCATTTTAC	GAACAGGACG	8280
GTTAGTAGTG	GTTGTACCAA	GTGTATCTTG	TACTTCTTGA	GAGATAATAA	AATCGATAAA	8340
TTTCTTGCCA	TTTTCCATAT	TTTTAGATTT	TTTAACGATA	GCAGCACTAG	CAGGTAGGAA	8400
GACGGTTCCT	TCTTTTGGAT	AGACTACCTT	AATGTTAGCT	CCGTCATTTA	AGAGTTTAAC	8460
TGCTGGATCT	TCATAAGAGA	GACCAACAGC	CATTTCTCCA	TCAGCGACTA	CTTTATAGAC	8520
ACTAGATGAA	CTTGAACCGA	TTTTACCATC	AATAAGTGTG	AAAAGATCTT	TTACATAAGA	8580
CCAAGCCTTA	TCATCTTTGT	AACCACCTTG	AGCTTGTAGC	ATATTTGTTA	ATTGAGCAAA	8640
GGCGCTAGAA	GAGTTTGCTG	GGTCAGCAGT	TGCGATTTTT	CCTTTTAGTT	CAGGTTTGAA	8700
AAGATCGTTA	TATCCTTCGA	TGTTCATGCC	TTTAGTTAAA	TCAGGGTTGA	CGATTAATAAC	8760
ACTACCATCT	AGTGTATAAG	GAGTAGAGTA	GCCAGTTGTG	TTTTGATATT	CTTTGATAAC	8820
ATTATCATTT	TCTTTTGAAG	TATAGTTTTC	AAAGAGTTCT	CCGTGGGTAG	TATATTGTGT	8880
ATAAGAACCA	CCAAAGATAA	CATCAGCTAC	AGGAACTTCT	TTTTCTGACT	CTAGTTTTTT	8940
GAAAAGTTCT	CCAGTACCAG	CTTGAATCAG	TTCTACTTTG	ATACCATATT	TTTCTTCAAA	9000
GGCAGGAATA	GTTGCTCCAA	TTAAGCCCTC	TGAGTTTGGT	GAATAAACGA	CTAGCGAACC	9060
GCCGTCTCCT	TTATCAGATG	AACTGTCATC	GGCAGATTCA	TTAGAAGAAC	AAGCAGCATA	9120
ATACATCCAT	TTCTTTTCA	TGATGGATAC	CTCCGTGTG	TTATTTAAGT	TTATTTTAAA	9180
ACAATGTAAG	CGTTTTTAAA	ACATACAATT	CTATTCTATA	GTGTATTGAA	TCTATAACAG	9240
TACACTTTGA	CTGCTAAAAT	ATTTCTATAA	ATTAATTGA	CTTTCCTGAT	AGAGATGTTC	9300

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ACATCTTATT TCAATTCACT ATATTAGAGT AAAATTCTCT ACAAAAAGAA GAATAGCCTA	9360
TTTTACTATT CTCTGAGTG ATTTCAATTC CTTTGGGGAA ATATGGAGAT ACTTTTTTAA	9420
TCCTGACAAA TGGTTGTTTC TTTTCTAAA TCGGTGATAC TGTATCGGAG AATGCGCGTG	9480
AGGTCACAAA GGCTGCGATA GAGCTTCTAT GGAGAATTTT TTTTGGAGA GATTTTTTAA	9540
AGGAATGAGA CATCCGCTAC CTCCTTGGA GGTTTTTG	9578

(2) INFORMATION FOR SEQ ID NO: 128:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 13440 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 128:

CGGGCTGTTG TGACGATTCT TATTTCTATC TGTGTTATCT TTTTGGGAAC TATTTTGGGT	60
GTTGTCTTGG CTTTTGGGCA ACGTTCAAAG TTAAACCGC TTGTTTGGTT GGCCAACTTG	120
TACGTTTGA TTTTCCGTGG GACACCGATG ATGGTTCAA TTATGATTGC CTTTGCTCTT	180
ATGCATATCA ATGCTCCGAC TATTCAGATT GGAATTTTAG GTGTTGATTT TTCGCGCTCG	240
ATTCCAGGGA TTTTGATTAT CTCTATGAAT AGTGGTGCTT ATGTTTCGGA GACTGTTTCGT	300
GCCGGAATCA ATGCGGTTC AAAAGGTCAG CTAGAAGCGG CTTATTCGCT AGGGATTCGT	360
CCTAAAAATG CGATGCGTTA TGTGATTTTG CCACAAGCAG TCAAAAATAT CTTGCCAGCA	420
TTGGGGAACG AATTTATCAC CATTATCAAG GACAGCTCCC TCTTATCAGC TATTGGGGTC	480
ATGGAGTTGT GGAATGGGGC TACAACAGTT TCTACAACAA CCTATCTACC TTAAACACCA	540
CTTTTATTTG CAGCATTTTA CTACTTGATT ATGACCTCTA TTCTGACAGT AGCCTTGAAA	600
GCTTTTGAAA AACATATGGG ACAAGGAGAT AAGAAATAAT GACAGAAACC TTGATAAAAA	660
TTGAAAATTT ACATAAATCC TTTGGAAAGA ATGAAGTATT GAAGGGCATC AACCTCGAGA	720
TTAAAAGAGG AGAAGTTGTC GTTATCATCG GTCCTTCAGG GAGCGGGAAA TCTACCTTGC	780
TTCGCTCTAT GAATTTGTTG GAAGAAGCAA CCAAGGGGAA GGTTATCTTT GAGGGAGTCG	840
ATATTACGGA CAAGAAGAAT GACCTGTTTG CCATGCGTGA GAAGATGGGC ATGGTTTTTC	900
AACAATTCAA TCTCTTCCT AATATGACTG TGATGGAAAA TATCACCTTG TCCCCATCA	960
AGACCAAAGG TGACAGTAAG GCCGTGTCAG AGAAAAGAGC TCAGGAACTT TTGGAAAAAG	1020
TTGGTTTGCC AGATAAGGCA GACGCTTATC CACAGAGTTT GTCAGGTGGC CAGCAACAGC	1080
GGATTGCCAT CGCGCGTGGG TTGGCTATGG AACCAGATGT TTTGCTCTTT GACGAGCCAA	1140

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CTTCAGCCCT	AGATCCTGAG	ATGGTTGGAG	AAGTTCCTGGC	TGTTATGCAA	GATCTAGCCA	1200
AGTCAGGAAT	GACCATGGTT	ATCGTAACAC	ATGAGATGGG	ATTTGCCCCG	GAGGTGGCAG	1260
ATCGTGTCAT	CTTTATGGCA	GACGGTGTGG	TTGTTGAAGA	CGGAACACCT	GAGCAGATTT	1320
TTGAACAAAC	CCAAGGACAA	AGGACTAAAG	ACTTCTTGAG	TAAGGTTTTA	TAAGTTAGCT	1380
TTGTTTAGCT	ATTTGTAGCC	AGCTTTAAAC	GTAAAGAGA	AGATTAGTGA	AAAGCTCAAC	1440
CAGAGCTTTT	TCTTATAGTT	TAAAGCTATA	GGATTGCCTA	GGAAAGAAGT	GTTAGAGCTA	1500
CATTGTATTT	TTTGGTATAA	TTAAAGATAT	TTGTAAGAAA	AGAGAAGTGA	TATGACACAG	1560
ATTATTGATG	GGAAAGCTTT	AGCGGCCAAA	TTGCAGGGGC	AGTTGGCTGA	AAAGACTGCA	1620
AAATTAAAGG	AAGAAACAGG	TCTAGTGCCT	GGTTTGGTAG	TGATTTTGGT	TGGGGACAAT	1680
CCAGCCAGCC	AAGTCTACGT	TCGCAACAAG	GAGAGGTCAG	CCCTTGCGGC	TGGTTTCCGT	1740
AGCGAAGTAG	TACGGGTTCC	AGAGACCATT	ACTCAAGAGG	AATTGTTAGA	CCTGATTGCT	1800
AAATACAATC	AGGATCCAGC	TTGGCATGGG	ATTTTGGTTC	AGTTGCCATT	ACCAAAACAC	1860
ATTGATGAAG	AGCGGTTCCT	ATTGGCTATT	GACCCAGAAA	AGGATGTGGA	TGGTTTCCAT	1920
CCTCTAAACA	TGGGGCGTCT	TTGGTCTGGT	CATCCAGTCA	TGATTCCTTC	GACACCGGCA	1980
GGAATTATGG	AAATGTCCA	TGAATATGGG	ATTGACTTGG	AAGGTAAAAA	TGCAGTCGTC	2040
ATCGGTTCGAT	CCAATATTGT	CGGAAAACCT	ATGGCCAGC	TTCTTTTGGC	AAAGAATGCA	2100
ACAGTAACCT	TGACTCACTC	ACGTACTCAT	AATCTTTCCA	AGGTGGCTGC	AAAAGCAGAT	2160
ATTCTGGTTG	TTGCAATCGG	TCGTGCCAAG	TTTGTGACTG	CTGACTTTGT	CAAACCAGGT	2220
GCGGTAGTCA	TTGACGTTGG	GATGAACCGC	GATGAAAATG	GTAAGCTCTG	TGGGGATGTT	2280
GATTATGAGG	CGGTTGCCCC	ACTTGCTAGC	CACATTACGC	CAGTCCCTGG	AGGTGTCCGT	2340
CCTATGACCA	TTACTATGCT	GATGGAGCAA	ACCTATCAGG	CAGCACTTAG	GACATTGGAT	2400
AGAAAATAAG	ATAAAAATTT	TCTGAGGAAA	GTGTATTTTC	TATAGCTATA	TCTAAAATGA	2460
TAGAAATGAA	TATTAAATTT	TAGAAATAAG	TTTATAAAAG	GAGGTTTGCG	CCTCCTTTTT	2520
GTTGTATAAT	GGAGTGAGGT	GATTAGATGA	TTTTAAAAAT	TTATAATGGG	GAATATAGTT	2580
TACAAATGGG	TGGAATATAC	TACTTAGCAC	TAATTGATTA	TCCAAATATT	CAAGAGTGGG	2640
AATTAGAAAA	AATTGCTAAA	TTTATAGCTT	ACGAAAAACT	TCATAAACGT	CAAACAAGTA	2700
TTGAGTGTGC	TGATTCTTGT	TTAAAAAAG	AAATTTTAGA	TTACATCTGT	CAGCATCCCT	2760
TTCTGCCACC	ATTTACTCCT	ACAGATAAAA	GAGTAGCCTC	GACTTATGAC	CTACATAAGA	2820
GGTTAGTGAC	TTCAGACTAC	TGTAGTCATA	CTACGACTAT	AGATGCAGCG	ATTTCTATTT	2880

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TTAAAACTGG	TCGTCTTTTA	TCTGCTGTGA	AAGCCTTTGG	GCGAGATGCT	GAGGAGTTGG	2940
TTTTGGATAG	TCGAAATGCT	GCATCTGATC	CGATAGATTA	TTTTGACTAT	GTCATGTTAG	3000
GGTGGTCAAA	TACAAGTTCT	GGTTATCGAT	TGGCGATGGA	GCGTTTATTA	GGTCGAGCTC	3060
CTTCAGAGAA	AGAATTACAA	GACAAGTTTA	TTCTTGAGT	AAGTTTTCAT	TTTATCTATA	3120
CAGATTTGAT	TAAAGTTCCT	GGTTATATTT	TTGATGGTTA	CCATGCTGTA	AAAATTAAGG	3180
ACATGCTTAA	TTTATTAAGT	GAGTTGTATA	TTTGCATTAT	TCCAACATCAT	AATAAGAGCC	3240
AATTTGAAAA	TATTATTCCA	ACCAAATAC	AAGATAGGGT	GTATTATCTT	GACTATGCTG	3300
GAGAAGACTT	AGAAGAGTGG	ACTAAGAAAG	TCTATCAAGT	TGTTTTAAAA	CAATCAGATA	3360
AAGGATAGTT	GAGGAAAAAA	CGATGAAAGT	GATTGATCAA	ACCTTACTAG	AAAAAGTCAT	3420
TATTGAACGT	TCTTGTACAA	GTCATAAAGG	AGACTACGGT	CGTCTGCTGT	TGCTTGGTGG	3480
GACTTATCCT	TATGGTGGTG	CCATCATCAT	GGCTGCTTTA	GCAGCTGTAA	AAAGCGGTGC	3540
AGGATTGGTA	ACCGTTGGAA	CGGACAGGGA	AAATATCCCT	GCTCTACACA	GCCATTTGCC	3600
TGAGGCTATG	GCCTTTTCTC	TGCAAGATCA	GTAATTGTTA	CAAGAGCAAT	TGGAGAAGGC	3660
AGAAGTTGTC	TTGCTGGGGC	CTGGTTTACG	AGACGATACG	TTTGGAGAAA	ATCTTGTAAG	3720
ACAGGTCTTT	GCTAGCTTAA	AAAAGAATCA	GATTTTGATT	GTAGATGGAG	GGGCCTTAAC	3780
CATCCTTGCT	AGGACAAGTT	TGTTGTTTCC	ATCTAACCAG	CTTATCTTAA	CTCCCCACCA	3840
AAAAGAATGG	GAAAAACTGT	CTGGTATTGC	TATTGAAAAG	CAAAACGAAG	GTACAACATC	3900
TAGTGCCCTG	ACTTCTTTCC	CTCAAGGAAC	AATTTTGSTA	GAGAAAGGTC	CAGCTACTCG	3960
TATTTGGCAA	GTTGGCCAGT	CTGATTATTA	CCAGTTAAAG	GTTGGCGGTC	CCTATCAGGC	4020
GACTGGTGGT	ATGGGTGATA	CACTGGCTGG	AATGATTGCA	GGATTTGCAG	GCCAATTTCCG	4080
ACAGGCCAGT	CTCTACGAAC	GTGTGGCAGT	AGCAACCCAT	CTTCATTTCAG	CCATAGCCCA	4140
AGAACTATCT	CAAGAAAATT	ATGTGGTCTT	GCCGACGGAA	ATTAGTAATT	GTCTTCCTAA	4200
AGTAATGAAA	AGATATGTCT	AAAATAGTTA	GACAAAAAAT	GTTGATAATT	TGTATCATTAA	4260
TTCTTAATTC	ACAAAAAACG	AACGTTTAGT	ATTCTTCTTG	CTAAGAAACT	AAATTTGTTC	4320
GTTTTTTTAC	TCTTGTAAT	CTATTTTGT	TAGAGTTGAT	TTGGTTTACA	TCCGTACTTA	4380
AATTGATTG	TTAGAGCTCT	ACTTTTATTA	AAAAAATTCA	ATTTCAAGGA	TAAATAAGCA	4440
GTATTCTAAA	GGTACTTTTA	GATGAAATAA	AAGCCTTTAC	ATGGTATAAT	AGAGGTAGCT	4500
CTTTAATGGA	GGTGTGAG	TGGAAAATCT	GAAGAAAATG	GCAGGTATCA	CGGCTGCTGA	4560
ATTTATCAAG	GATGGGATGG	TTGTAGGGCT	AGGAACAGGT	TCTACTGCCT	ATTATTTTGT	4620
CGAAGAAATC	GGTCGTGCAA	TCAAGGAAGA	AGGCTTGCA	ATTACAGCTG	TGACGACTTC	4680

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TAGTGTGACC	AGTAAACAGG	CTGAAGGGCT	CAATATCCCG	CTCAAGTCTA	TTGACCAAGT	4740
AGACTTTTGT	CATGTGACAG	TCGACGGGGC	GGATGAAGTG	GATAGTCAGT	TTAATGGAAT	4800
CAAAGGCGGT	GGTGGTGCCC	TTCTCATGGA	AAAGGTGGTC	GCAACACCAT	CAAAAGAATA	4860
CATTTGGGTG	GTGGATGAAA	GCAAGCTGGT	CGAAAACTA	GGTGCTTTTA	AATTGCCAGT	4920
AGAAGTGGTT	CAGTATGGTG	CAGAGCAGGT	CTTTCGTCAT	TTTGAACGAG	CTGGCTACAA	4980
ACCAAGTTTC	CGTGAAAAAG	ACGGCCAACG	TTTTGTGACC	GATATGCAGA	ATTTTATCAT	5040
TGACCTCGCC	TTGGATGTCA	TTGAAAATCC	AATTGCTTTT	GGACAAGAAT	TGGACCATGT	5100
CGTTGGTGTT	GTGGAGCATG	GTTTATTCAA	CCAAATGGTG	GATAAGGTAA	TCGTTGCTGG	5160
ACGAGATGGA	GTTTCAGATT	CAACTTCAAA	AAAAGGAAAA	TAGAAGGGGG	CATAAGATGT	5220
CTAAATTTAA	TCGTATTCAT	TTGGTGGTAC	TGGATTCTGT	AGGAATCGGT	GCAGCACCAG	5280
ATGCTAATAA	CTTTGTCAAT	GCAGGGGTTC	CAGATGGAGC	TTCTGACACA	CTGGGACACA	5340
TTTCAAAAAC	AGTTGGTTTG	AATGTCCCAA	ACATGGCTAA	AATAGGTCTT	GGAAATATTC	5400
CTCGTGAAAC	TCCTCTTAAG	ACTGTAGCAG	CTGAAAGCAA	TCCAACCTGA	TATGCAACAA	5460
AATTAGAGGA	AGTATCTCTT	GGTAAGGATA	CTATGACTGG	ACACTGGGAA	ATCATGGGAC	5520
TCAACATTAC	TGAGCCTTTC	GATACTTTCT	GGAACGGATT	CCCAGAAGAA	ATCCTGACAA	5580
AAATCGAAGA	ATTCTCAGGA	CGCAAGGTTA	TTCTGTAAGC	CAACAAACCT	TATTCAGGAA	5640
CGGCTGTTAT	CTATGATTTT	GGACCACGTC	AGATGGAAAC	TGGAGAGTTG	ATTATCTATA	5700
CTTCAGCTGA	CCCTGTTTTG	CAGATTGCTG	CCCACGAAGA	CATTATTCCT	TTGGATGAAT	5760
TGTACCGTAT	CTGTGAATAC	GCTCGTTCGA	TTACCCTTGA	GCGTCCTGCC	CTTCTTGGTC	5820
GCATCATTCG	TCGCCCTTAT	GTAGGTGAAC	CAGGTAACCT	CACTCGTACG	GCAAACCGTC	5880
GTGACTTGCC	TGTATCTCCA	TTTTTCCCAA	CTGTTTTGGA	TAAATTGAAT	GAGGCTGGTA	5940
TCGATACTTA	TGCTGTGGGT	AAAATCAACG	ATATCTTTAA	CGGTGCTGGT	ATCAACCATG	6000
ACATGGGTCA	CAACAAGTCA	AATAGTCATG	GAATTGATAC	ACTATTGAAG	ACTATGGGAC	6060
TTGCTGAGTT	TGAAAAAGGA	TTCTCATTCA	CAAACCTAGT	TGACTTTGAT	GCCCTTTACG	6120
GCCATCGTCG	TAATGCTCAC	GGTTACCGTG	ATTGCTTGCA	TGAGTTTGAT	GAACGCTTAC	6180
CTGAAATTAT	CGCAGCTATG	AGAGAGAATG	ACCTTCTCTT	GATTACTGCG	GACCATGGAA	6240
ATGACCCAAC	GTATGCAGGA	ACGGATCACA	CTCGGGAATA	TATTCCATTG	TTGGCCTATA	6300
GCCCTGCCTT	TAAAGGAAAT	GGTCTCATTC	CAGTAGGACA	TTTTGCAGAT	ATTTTCAGCGA	6360
CTGTTGCCGA	TAACTTTGGT	GTGGAAACTG	CTATGATTGG	GGAAAGTTTC	TTAGATAAAT	6420

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TGGTATAAGA	TGACGCGCTA	TGCTTTGCTG	GTGAGAGGTA	TCAATGTTGG	TGGTAAGAAT	6480
AAGGTCGTCA	TGGCGGAGCT	TCGTCAAGAA	TTGACAAACT	TGGGACTGGA	AAAGGTTGAG	6540
AGCTACATCA	ATAGTGGCAA	TATTTTCTTT	ACTTCGATAG	ATTCCAAAGC	CCAATTGGTT	6600
GAAAAGCTAG	AGACTTTCTT	TGCAGTCCAT	TATCCATTTA	TTCAGAGCTT	TTCTTTACTG	6660
AGTCTAGAGG	ACTTTGAGGC	GGAACCTGAA	AATCTACCAG	CTTGGTGGAG	CAGAGACTTG	6720
GCACGAAAAG	ATTTTCTCTT	TTACACTGAG	GGTTTGATG	TGGACCAAGT	CATCGCGACA	6780
GTTGAAAGTT	TAGAGCTGAA	AGATGAAGTG	CTTTATTTTG	GAAAACCTGG	GATTTTCTGG	6840
GGGAAATTTT	CTGAAGAATC	CTATTCTAAG	ACTGCCTATC	ATAAGTACTT	GCTGAAGGTG	6900
CCTTTCTACC	GCCACATTAC	TATTCGTAAT	GCTAAACCT	TTGACAAAAT	TGGTCAAATG	6960
CTAAAAAAT	AATAAAGGAG	ACACACAATG	ACATTTTTAA	ACAAAATCCA	TGAAACTGCT	7020
ACTTTCCTGA	AAGAAAAGGG	AATTGCAGCC	CCTGAGTTTC	GTCTAATCCT	TGGATCAGGA	7080
CTTGGAGAAT	TGGCAGAAGA	AATCGAAAAT	CCAGTTGTAG	TAGACTATGC	TGAGATTCCA	7140
AACTGGGGCC	GTTCAACAGT	AGTCGGTCAT	GCTGGTAAAT	TGGTATATGG	TGAACTGGCA	7200
GGTCGCAAGG	TCTTGGCTCT	TCAAGGGCGT	TTCCATTTCT	ATGAAGGGAA	TCCTCTGGAA	7260
GTGGTGACTT	TCCCAGTTTC	TGTGATGAAA	GTTCTTGGAT	GTGAAGGTGT	TATTGTAACC	7320
AATGCAGCTG	GCGGTATCGG	ATTTGGTCCT	GGTACCTTGA	TGGCTATCTC	AGACCATATC	7380
AACATGACGG	GGCAAAATCC	ATTGATGGGT	GAAAACCTGG	ATGACTTTGG	CCCACGTTTC	7440
CCAGATATGT	CTAGGGCCTA	CACACCAGAA	TACCGTGCCA	CTGCCCATGA	AGTGGCTAAA	7500
AAACTTAATA	TCAAGCTTGA	TGAAGGTGTC	TATATCGGAG	TTACTGGTCC	GACTTATGAA	7560
ACACCAGCAG	AAATTCGTTC	CTATAAGACA	CTGGGAGCAG	ATGCAGTTGG	TATGTCTACG	7620
GTTCTGAAG	TTATCGTGGC	AGCCCACTCT	GGCTTGAAAG	TTCTGGGAAT	TTCATGTATC	7680
ACTAACTTTG	CGGCCGGTTT	CCAAGAAGAA	CTCAATCACG	AAGAAGTTGT	AGAAGTGAAT	7740
GAACGTGTTA	AAGGTGATTT	CAAAGGCTTG	CTTAAAGCGA	TTCTTGCTGA	ATTGTAAGAA	7800
AAAAGATTTA	AAAGGGGGAG	TGCCTCTGTT	TTTTCAGGAT	TGACTGCCTA	TCCGGATTAA	7860
AGAAGAAACA	GAGGAATACT	ATGAGCTTCT	TCCTGCTCTT	ATAACTGAAA	GAAGCGGAAG	7920
AATAGGTATG	TCTGATCTGA	TAGCCAGCAT	TGTGAAAGAC	AAGATTCTAG	GATACTAGCA	7980
TTAGCTTCCT	AGCCAAGCAG	ACTAGTATGA	TAAGGAGAGA	TGAGAATGAA	TTGACTTTCT	8040
GAATTTCTCA	GTCTTATCAT	ATATAGCACA	ATGAGATTTT	GCTTGAGTCT	GCTTGTAAT	8100
AAACGAAAAG	AAAGATAAGA	AATAATGAAA	ATTGGTCAAC	GAATTATGCG	CTTTGGCATA	8160
AAAAATTAAG	TATCGGAGTT	GTATCTGTTG	TAGTCGGCTT	TGATTCTTAG	CTCCAGCTGG	8220

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AATTTTCAGCC	AATGAAGTAA	AGCAAGATGT	AACATCTGAA	GTGGTAATAG	GTGTGCTAGA	8280
TTCTAAGGAG	GAATTGAAAG	AGTCAGAAAA	TGATGCTCCA	AAACTAGAAA	CTCCTCTTAG	8340
AGAGGAGCCA	AGACTAGCTC	CTCAAACGCT	TCCGGAAGCA	AGTGAAGTTC	TTGAAAACAA	8400
AAGGGAAGAG	TCAAAAGTAG	AGATAACATA	ACCAGCTCAA	GCGGATGATA	TCCGCAAGGT	8460
TGTTGGGGAA	TTAGCCAAGG	ATATAAGTAT	TACTAAGTTG	TATATGACAG	GTCATTCTCT	8520
TGGATGTTAC	CTAGCTCAGA	TTGCAGCGGT	TGAAGCTTAC	CAAAAATATC	CTGATTTTTA	8580
TAACCATGTA	TTGAGGAAAG	TGACAACTTT	CAGTGCTCCT	AAAGTGATTA	CTTCCAGAAC	8640
TGTTTGGAAT	GCTAAGAATG	GTTTCTGGGA	TGTTGGTTTG	GAAAGTCGTA	AATTAGCTGT	8700
TAGTGAAAA	ATTAAGCATT	ATGTGGTTGA	TAATGACAAT	GTTGTGACTC	CCTTGATTCA	8760
TAATAATCGT	GATATTGTTA	CATTTACAGG	TAATTCACGC	TTTAAACACC	GTTCTCGTGG	8820
CTATTTTGAA	AGTCCAATGA	ATGATATTCC	TAACTTTAAT	ATTGGTAAAC	AAGCTACCTT	8880
GGATAAACAT	GGTTATCGTG	ATCCGAAATT	GGATAAAGTG	CGATTCTTTA	AGAAACAGGC	8940
TCTGCCTCGA	TCTTCTAGTC	AACCAAGCGC	TGAACCAATG	GAAAATATTG	CCTCAGGAAA	9000
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AGTCGATGGT	AACTATGGTC	ACAATTCTGT	CACTCATACA	AACTTCCAAT	CTAAGCCTTG	9120
GTGGCAAGTA	GATTTGGCTA	AAGAAGAAAC	CATTGCGCAA	ATCAATATTT	ACAACCGAAC	9180
AGACACTGCC	CAGGATAGAT	TGGCAAACCT	TGATGTCATT	CTTTTAGACA	GTTCTGGTAA	9240
AGAAATTGAG	TGAAAACGTA	TAACATCTCC	TAAAGATGTG	TCAGCACAAA	TTACGATTAA	9300
CCATAAAAA	GCGCGCTATG	TTCGGATTGA	GCTAGAAGGC	TATAATGCCC	TCAGTCTTGC	9360
AGAAGTTGAA	GTTTTCTGCT	TTATAGCTAC	GAATGCTGAA	ACGGCGACAC	AAGTTTCTAA	9420
GCCAGTTCAA	CCAATCAGTC	AGACTCCTGT	GAAGGATAAA	ACATTGACAA	TTCAACACAG	9480
TGGAGCTTAC	ATTGCCCCGT	ACTCCATAAC	TTGGGAAGAA	GTTCCAGTAG	ATAAAGATGG	9540
AAACCAAGTT	GTTCTGTAGTC	ATTCTTGGGA	AGGAAGCGGT	CGCAACCAGA	CTGCAGGTTT	9600
TGTCCTCAAC	CTCCCAATCA	AAGAAAATAT	GAGAAATCTG	CGAGTTAAGA	TTGAGAAAAA	9660
GACGGGCCTA	CTATGGAATA	GATGGCAAAC	AATCTATGAA	AACAGACCAA	TTTTAGCTCA	9720
ACCCACCGT	AAAATTACCC	ATTGGGGTAC	GACATTGAAT	TCCAAGGTGA	GTGACGATGA	9780
TGTCTTGTA	TCTGATGGTA	GAATGACAGT	TAGTTTGCTCT	AGTTTATAAG	AAAGTACTAC	9840
CTGAGCTTGA	ATAGGACTCA	GGTAGCTCTC	TATGAAAGAA	CAAAATTAAT	ACTCAATGAA	9900
AATCAAAGAG	CAAACATAAGA	AACTAGCCGC	AGGTTGCTCA	AAGCACTGCT	TTGAGGTTGT	9960

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AGATAAGACT	GACGAAGTCA	GTCACATATA	TAATCCAAGG	CGACGTTGAC	GTGGTTTGAA	10020
GAGATTTTCG	AAGAGTATAA	ACAGAAAGGT	AGAGCGCGTG	TTCTAATTG	AACACGAGTA	10080
GAAAACTTTT	CTAAAAACAA	AAACGAAAGG	ATGGGTAAAC	TGTATTCGCT	GAAGTGAATA	10140
CGGGCGACTC	TCCTCTAAAT	CAAAATTAAG	AAAGGAATTG	ACCCACCCCT	AAAAGTAGTG	10200
GGAAAAAGAT	AGTTGATCTA	GCGAGCATCG	CTCACTGCGC	CCAACTCCTA	TTTTCCTTC	10260
GCTTTTGTGAT	GGGTTTGGTA	TCTTCTCAA	TATAAAATAT	AAAATAAAGA	AAGGTAGAGC	10320
GTGTGTTTTG	ATTGAACAC	GAGCGGAAAA	CTCGGAAAAT	AGATAATCTG	ACTGAAAAAT	10380
CAGGATTTCT	CGTCAGGTC	CTAATTTTCA	GTCGTTTTCT	TCTCGCTCTT	TGTATCATAA	10440
ATTATGTCTA	TCCATATTGC	TGCTCAGCAG	GGTGAAATTG	CTGATAAAAT	TCTTCTTCCT	10500
GGGGATCCTC	TTCTGTCTAA	GTTTATTGCG	GAGAATTTCC	TTGATGATGC	TGTTGTTTTT	10560
AACGAAGTGC	GTAACATGTT	TGTTTACACT	GGTACTTACA	AGGGTCACTG	TGTATCTGTC	10620
ATGGGAAGTG	GGATGGGAAT	GCCATCTATT	TCGATTTATG	CGCGTGAGTT	AATCGTAGAC	10680
TACGGTGTGA	AGAAATTGAT	TCGTGTGGGA	ACTGCAGGTT	CTTTGAATGA	AGAGGTTTCT	10740
GTTCGTGAAT	TAGTTTTTGGC	GCAGGCGGCT	GCAACCAACT	CAAACATCGT	TCGTAATGAC	10800
TGGCCACAGT	ACGATTTTCC	ACAAATTGCT	AGCTTTGATT	TGCTTGATAA	AGCCTACCAT	10860
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TACTCAAATT	ACTTTGAAAA	GAATATCGAG	CTTGGTAAAT	GGGGAGTCAA	GGCTGTGGAA	10980
ATGGAAGCAG	CAGCTCTTTA	CTATCTTGCT	GCCCAATACC	ATGTTGATGC	GCTAGCTATC	11040
ATGACCATCT	CTGATAGCTT	GGTCAATCCA	GACGAAGACA	CAACTGCAGA	AGAACGTCAA	11100
AATACCTTCA	CTGATATGAT	GAAGGTTGGT	TTGGAAACCT	TGATTGCAGA	ATAATTATAG	11160
CCAAAAAGGG	GCTCTTTGTC	AACTGTAGTG	GTTTGAAAAA	AAGCTAAGCT	TGAGAAAGGA	11220
CAAATTTTCGT	CCTTTCTTTT	TTGATATTCA	GGGCGATAAA	AATCCGTTTT	TTGAAGTTTT	11280
CAAAGTTCCG	AAAACCAAAG	GCATTGCGCT	TGATAAGTTT	GATGAGATTA	TTGGTCGCTT	11340
CCAGTTTGGC	ATTAGAATAG	TGTAGTTGAA	GGGCGTTGAC	GATTTTCTCT	TTGTTCTTTA	11400
GAAAGGTTTT	AAAGACAGTC	TGAAAAAGAG	GATGAACCTG	CTTCAGATTG	TCCTCAATGA	11460
GTCCGAAAAA	TTTCTCAGGG	TCTTTGTTCT	GAAAGTGAAA	AAGTAAGAGT	TGATAGATCT	11520
GATAGTGGTG	TTTCAAGTCT	TCTGAATAGC	TTAAAAATCTT	GTCAAGAATT	TCTTTATTTG	11580
TTAAGTGCAT	GCGAAAAGTA	GGGCGATAAA	AACGTTTATC	GCTsArTTTA	CGACTATCCT	11640
GTGAGATGAG	TTTCCAGTAA	CGCTTGATAG	CCTTGTATTC	ATGAGATTTT	CGTTCAAACCT	11700
GATTCATAAT	TTGAACACGA	AAACGACTCA	TGGCACGGCT	GAGATGTTGG	ATAATATGGA	11760



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AACGATCTAG AACGATTTTA GCACACGGAA AAAGCTGTTT AGCCAAGTCA TAGTAAGGAC	11820
TAAACATATC CATCGTAATG ATTTTCACTT GACAACGAAC GGCTCTATCG TAGCGAAGAA	11880
AGTGATTTCG GATGACAGCT TGTGTTCTGC CTTCAAGAAC AGTGATAATA TTAAGATTAT	11940
CAAAATCTTG CGCAATGAAA CTCATCTTTC CCTTAGTGAA GGCATACTCA TCCCAAGACA	12000
TAATCTTTGG AAGCCGAGAA AAATCATGCT CAAAGTGAAA GTCATTGAGC TTGCGAATGA	12060
CAGTTGAAGT TGAAATGGCC AGCTGATGGG CAATATCAGT CATAGAAATT TTTTCAATTA	12120
ACTTTTGAGC AATTTTTTGG TTGATGATAC GAGGGATTTG GTGATTTTTC TTTACCAGGG	12180
GAGTCTCAGC AACCATCATT TTGGAAsAGT GATAGCACTT GAAACGGCGT TTTCTAAGGA	12240
GAATTCTAGA AGGCATACCA GTTGTTCGA GGTAAGGGAT CTTAGACGGT TTTTGAAAGT	12300
CATrTTTCTT CATTAGACTT CCACAATCAG GGCAAGATGG AGCCTCATAA TCCAGCTTAG	12360
CGATAATTTC TTTGTGGGTA TCCATATTGA TGATATCTAG AATCTTGATG TTTGGGTCTT	12420
TAATATCGAG CAGTTTTGTG ATAAAATGTA ATTGTTCCAT ATGATTCTTT CTAATGAGTT	12480
GTTTTGTCGC TTTTCATTAT AGGTCATATG GGACTTTTTT TCTACACAAA AATAGGCTCC	12540
ATAATATCTA TAGTGGATTT ACCCACTACA AATATTATAG AGCCCCAAAA GGAAGCCCTT	12600
TATGAATGT AGGACTTCCT TTTCTTATCC AGAAATTGAT CTAGCTCTCT CTGATTTCTGA	12660
AGAATAGTGA CTTTATGTGA ATATTCTTGG CAAAGTTTTT GGTAATTTTC TTTTGTAGTT	12720
TTGCGGACGC CCATCCCCAA GAATCCATCT GATAAACTCC CACTCAAAGC GTTCAGGGCA	12780
ATCTACCGCC ATACTTTCTC TGACTTTTCC ACGGTATTTA AGATAACGCT TAAAGGCTCT	12840
AAAGAGACAG GTCAATGGCG AAAAATTGAG AAAGATGATT TGGTCAGCTT CTTGCATTCTG	12900
TTCTTGGTAG TAGCACCAAG AATAATTACC ATCGATGACC CAAGCTTTAT GCTTGGTGAG	12960
AAAGTTTTTT ATCTCGGTTA ACATCCATTC GCAGTCACTG TCTTGCCAAC CAGGTTGAAA	13020
TTGGAGTGTG TCCATGTGCA GTTTTGGAAT GGAGTAGTAG TTAGATAACT TTTCTGCTAT	13080
AGTTGACTTA CCAGAACCAG AATATCCGAT AATTGCGATT TTCATTTTCT ACCTTTTCCT	13140
ATTTGGAGAC AAAAAACAG CCTCTATGGA CTGTTTCTTA TTTAACAAGT TTAGCTGAAA	13200
GACGAGCTTT ATCGCGGCTT GCTTTGTTTT TGTGAATCAA ACCTTTAGTT TCTGCTTTAT	13260
CGATAGCTGA GCTAGCAGCA CGGAAAAGTT CTTCAGATGG GTTTGCTTCG AAAGCTTTTA	13320
TAGCAGTACG CATAGCTGAT TTTTGAGCTG AGTTCTTTTC GATTCGTCTA ACGTTCAATT	13380
CAGCGCGTTT GATAGCTGAT TTAATGTTTG CCAATGGTCT TACCTCCATA TTTACTAACT	13440

(2) INFORMATION FOR SEQ ID NO: 129:

890

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 8512 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 129:

CCTTTTTC	AAA	ACTAGAT	ACTAGTCTAT	CAAAAGTAGG	AAAGGGTTTC	AAGAAAATTG	60
ATTGGAAATT	TTTTGAAAAT	CATAGAACTA	TTAGCTAATC	CCTAGTATTG	AAAAGACTGG		120
ATAGCTTCTT	TCAGGTCATC	TTGTAAACTA	TTTCTCTGGT	CAAGTTGGAC	ATAGACTTCC		180
ACCAGACAGG	ATCTAAAGTT	GGAAAATTTG	TAAAAATCCT	CCCTTTCTTC	TATCGGAAAA		240
TCAACAGTTT	TTATCCAAGA	AGCTACTTGT	TCTTGCTCCA	ACTTCCCTTG	TAAAATAGGT		300
TCATAGATCA	CTCTTGCTAA	ACGCCAATCC	TCATCATCTG	TAAAGCGAAT	CGACATTCTT		360
TTAAATAGTT	GGCCAAGTAT	ATCAAATACT	TCATGAACTC	TGTTTTTAGG	AAAGTCTGGA		420
TGACAAACCA	CCTCTGTCAG	TAAATCGGCT	CCATGTGCAA	AAGCGTGAAC	CCAACCATAC		480
TGACTTGAGA	AACCCCTTGT	ATCCTTTTCT	TTTGAAAGAT	AGTGCAAGCC	TTGATTTAAA		540
AGGACATTAC	GAATTCTCTG	AGAAGGATTT	CCCAAATGAT	CAAACAACCA	CTGGATTCTT		600
TCCTGGTTAT	AATTTGGTTT	TTCTTCTGCT	ATTTTCTTCT	GTAAATCTTG	ATACATGGTC		660
AATACCTCTA	CATTTCTAGC	AACTGTTCAA	AAAGGCAGTC	TTAAATGACT	CAATATTGAA		720
TTCTCAATTA	AATACAATCT	GATATAAAAT	GACGTAAATA	ACTATCAATA	CCAGTTCTAC		780
AGTAAGTTCA	AATTTAACAT	CACGACCTTC	AACGACATTT	TTGAAAATAG	CTACAACATA		840
GACAAATAGA	ATGACGCTTA	ACAAGCCCAT	AAACATCATT	CTAAAAAATT	TTTCTATTCC		900
CCTACTCTCC	CAACTCAGCA	CTATAGGAGA	TAATCTGGTC	AACTGTGTCA	GACAAGAATT		960
GGATGGTATC	ACGGAGTGGT	TTGTCTGTTG	AAATATCAGC	ACCGATAATC	ATGGCTGACT		1020
CAAGTGGTGT	CTTGCTACCA	CCTGATTTGA	GGAGATTGAG	CCAGTCTTCA	GCTCCAGTTT		1080
CAGATGTTT	TAGATGAAGG	TAACCAGCAG	TCGAGATAAC	TAGTCCTGCT	GAGTAAGTGT		1140
AACTATACAA	GCCCATATAG	TAGTGAGCTT	GGCGCATCCA	AGTCAGAGTT	GCATCATCGT		1200
CAATTTCAAT	AGCATCTCCC	CAGAAATCCG	TCAAACTTC	CTTCATAATG	CTGTTGAGCT		1260
TGCTTGCTCC	AAAGTCTCC	CCTTCTTCAA	TCAATGTATA	CACCTTACGC	TGGAAGGCGG		1320
CTTCCAAGAG	GTGGGTGATA	AAGTTATGGA	AGTAGGTGTC	TGTCAAGCGA	TGAGCCAGAG		1380
CGAAGCGTTT	TTGACGTGGG	TCATTAGACT	GGTCTCCTCA	GTAATCACTG	AGTAGCAATT		1440
CATTGAAGGT	TGACGGTGCT	TCAACATAGT	AGGTCGACAT	ATGGGCATTG	AAGTAACTTT		1500

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GATGATTGTC	TGAAAAGATG	AATTGACCAG	AATGCCCGAT	TTCATGAATC	AAGGTATAGA	1560
CATCGCTCAA	ACGGCCTGTC	CAGCTCATGA	GTACATAAGG	GTGTACGCGA	TATGGGTCCG	1620
CCGCATAACC	ACCGGAATCC	TTGCCACTGT	TAGCAGCAAA	GTCCACCCAG	CGCTCTTCTT	1680
GGTAACGAGC	AACTTCCTGA	CAATATCTTT	GCCCCAAAGG	TTCTACCGAC	TTCATGACCA	1740
AATCATAGGC	ATCGTCAATA	GTCAC TTCAG	GATT CAGGGC	GCTGTCCAAG	TCCAATT TCC	1800
AGTCTGCAAA	GGTCATCTTT	TCAAGACCAT	TTACCTTGGC	AACATGCTTG	AGGTATCTCT	1860
GAGCGACTGG	TGCAAAGTCC	TTCATGATGA	GGTCAATCTG	GCGGTCAAAC	ATGACACGGT	1920
CCACTTCTTG	TTCAGCTAGA	AGATAGTCAA	AGACAGAGTC	GTATCCCTTC	ATATCAGCCA	1980
AGAGTTT TTC	AGACTTGACC	TGAGCCAGAT	AGGCTGCTGC	AGCCGTATTT	TGGTGCTTAC	2040
GAAGTCCCTC	TGAGAAGGAA	CGGAAGGATT	TCTCACGAAC	CTCAGCATCC	TCATGGTTTT	2100
GGTAGAAAT T	CTCATAGGTC	ACAAAGCTGT	TTTTGTAGGT	CTTGCCATGG	GCTTCAAAGT	2160
CAGCCAT TTT	AAAATCCCCA	GCTCGCATCT	TAGTATAAAT	GTCTGCGGGA	CTGTAGAAAA	2220
CTTCACCGAG	ATTTGTCAAG	GCCTTCTCCA	CATCTGCCCC	TAAGTAGTGG	GCTTTTTTTGA	2280
TTTTAGCCTG	ACGAATGGCA	GCTGTTAAAT	GTGGCAATTT	ACCCAAACGG	TCCAAGACTT	2340
CCTCATCTGC	TGCCACCAAG	GCATCGTCAA	AGAAGGTCAA	GGCTACGCTG	GCATCTGTTT	2400
CAAAT TCCAT	CCCAGCTTGG	GCAATATTGG	CAAATTCGTC	ATTGCTATAG	TCCGTCGTCT	2460
GAGGCATAAA	ACCATAGTTG	CCAATATGGC	TCATCTGAAT	GATAGTCTGT	TCCAATTCCG	2520
CAAAGGCCTT	CTCGAAATCC	TCAAAAGTGT	GAAGATTGCC	CTTGTAATCA	CGGCTAAACT	2580
GGTTGATGTC	TTGCGAGGCT	TTCTCGATTG	CACGCAAGAA	ATCCTCACGG	TCTTGGTATA	2640
GGGCTGT TAA	GTCCCAGAGT	TCCTTCTCTG	GAAAT TCTGA	ACGGTGTTTT	TGTTCCATTT	2700
TCTTCCTCTT	ATTTCTCTAA	TTCTACTAAA	ACACTAAGGG	CTGATAAAGC	GTAAAGCGGT	2760
GCTGTTTCTG	CTCGCAAAAT	ACGAGGACCT	AGGCCTGCCA	AAACGGCTCC	TTTAGCTTCA	2820
AAACTTTCGA	TTTCTGCAGG	TGAGAGACCG	CCTTCTGGAC	CAAAGATAAA	GAGCAGTTTG	2880
GCTCCTGTTT	CAAGACCAGT	GACTGCTTGC	AGAAGCGCAG	CGGCTTCTCC	TTCTTTAGCT	2940
GATTCTTCAT	AGGCTACTAT	GATAGAGTCA	AACTGGTCCA	GCTGAGCTAG	AAAATCTGCT	3000
TTTTTCTCGA	AAAGTTTAAT	ACTTGGTACA	ATATTACGCT	TGCTTTGCTC	GGCTGCTCCA	3060
AGGGCAATTT	TTTCTAGTTT	TTCAACTTTT	TTACCCAATT	TCTTGCCATC	CCACTTGGCA	3120
ACTGACCAGT	CTGCAGGAAA	GGCCCAGATT	TGGCTAGCCC	CCAGTTCGGT	TACTTTTTGA	3180
GCGATGAACT	CCAGCTTGTC	TCCCTTGGGA	AATCCAGATG	CGATGGTCAC	TTGGACTGGT	3240

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AGTTCACAT	TGTCATTAA	TTCTTGGACC	AACTCAAAC	GACGATTTTC	CATATCCAGC	3300
ACGCGCGCCA	AGCGCTTGAT	GCCATCATCA	AAGACTAAGG	TAACCTCATC	CTCTTCTTTC	3360
AAGCGCATAA	CCTGAAACAT	ATGCTTACTG	GTTTCCTTGT	CCTCGATAGT	GACAGGAGAG	3420
ATAGCACTGC	CTTTTACAAA	ATACTGCTGC	ATGCTAGCCT	CCAATCACAC	CAGAGATATC	3480
CTTGGTTTTC	TTAAAGACAC	AGGTATTCCA	TTCCCCTTGA	ACCATGTGAG	TTTCGAGGAA	3540
AAATCCAGCT	GA CTCAGCCG	ACTGGCGCAC	CATGTCCAAC	TTGTCCTTGA	TAATGCCACT	3600
CATGATCAGG	TAGCCTTCAT	CCTTTACCAA	GCGATAAGCA	TCGTCTATTA	GATGAATGAG	3660
GATATCCGCC	AAGATATTAG	CCACAATCAC	ATCTGCCTCA	ATTTCCACAC	CCTTAAGCAA	3720
ATCTCCAGCC	GCTACATGGA	TATTTTCCAT	GCCAGGGTTG	AGCTCAATAT	TTTCCTGAGC	3780
CACACGAACC	GCCACATCAT	CCAGGTCATA	GGCGAAAATT	TCTTTAGCCC	CCAGAAGCGA	3840
GCTGGCAATA	GAGAGAACCC	CTGAACCAGT	CCCCACATCT	AGCACCGTTT	CGCCACCACG	3900
AAGAACCTGT	TCCAAGGCAA	AAAGGCTCAT	CTTGGTAGTT	GGGTGGGTTC	CAGTACCAAA	3960
AGCCATGCCA	GGATCCAGCT	TGATAATCAT	TTCCCCGCA	GTCGCCTCAT	AGTCTGTCCA	4020
AGAGGGAACG	ATGGTCAAAT	CATGAGTGAT	ACGAGCAGGT	TCATAGTATT	TCTTCCAGTT	4080
GTCTGCCAG	TCTTCCTCAG	CCAAGGCAGT	CGTACCTATT	TTTAACTCTC	CCAAATCCAT	4140
AAAATCTGTC	AATTCTGCTA	GACGAGCCTG	CAAATCCGCC	TCAACCACTG	TCACATCCAC	4200
CGTGTGAGG	TAGTAGGCTG	TCACTACGAT	TTCTTCTTGC	TGCTCCACCT	CTGGGAAAAT	4260
CTCTCCAAAG	CGGTCCACAT	TTCCACATA	GTCCATACTG	TCTTCGATTG	CGACTCCTTG	4320
CGCTCCCAGC	TCAATCAAGA	GATTGGAAAC	CAACTCCTCT	CCCTCACGCT	TCACTGTAAC	4380
TTTTAACTCT	TGCCATGTTT	CCATTATTAA	TACCAAGCCC	GTAAAACACA	AAACCAAAAT	4440
AGGAAATTCT	CTGAAGACGC	TTGTGTCTAA	GAGAAGTTTA	TCTTTTGGC	ACAGTGTTTA	4500
GGGCGGGTTC	AGTTTAGAAA	TGTAAGTAA	CCATCCTTTC	TAATCACTTA	CTTTTAAATA	4560
ATCTTTTAAT	CTCTCTTGCA	ACTGAGGCAC	AACTTGACTG	GAAC TAAGAA	ATTCCTCAAC	4620
ATTCATCAGC	TGATAGCCCT	GTCCTTCATC	TCCGAAGATG	ATATTGTCAA	ATTGTTCTTG	4680
TCTTAGCTGA	CCAACCATAA	AGACCGATTT	CTTGCCCTTTA	AAAATTACGC	TAGGATAAAT	4740
CTTGCTCCAA	AGCAGACAGT	CTTCATCTAA	ATGAATTCCC	AGTTCCTCAT	AAACTTCACG	4800
CCGAGCGCAT	TCAAAAGGGC	TTTCGTCCCC	TTCACGGCCA	CCACCTGGCA	GTTCCACAT	4860
ATTGGCCAG	GGAATACTTG	CCTTATCATC	GCGTAAGATA	GTCAAAAGCT	TATCCCCACA	4920
AAACAAAGCA	ATCTTGCAAC	CTGTGAAATC	AGAAATTTCT	AGTTCATCT	TCAGTTCCTT	4980
CTAACATTTT	CTTTTCCAGC	TCGGCTAACC	AGTTTTCATA	ATATCTTTTC	TCATCCCTCA	5040

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ACATTGCGACT	ACTATCCATT	TTCTGTCTAG	CAATCTTGAG	AGCCTTACGA	GTTGCGATCTA	5100
CATCTTTCTT	CACCTTTAAT	TGATACCAGG	CTTGTATCAC	TTGAAGATTG	GACAGTTTGA	5160
GAGACAGAAA	CGATTTGACC	TGTCGAATAC	TAGCATATTG	CTCCGCTTGC	TCAAAATCTC	5220
CTTCCAACAA	GGCGATATGA	AGCAGGGATA	GTTGGGCAAC	TGTCTGCATC	ATCGGAGTAG	5280
TTGTCCCTCTC	AAGTAATGCT	TGAAACTGCT	GTTTAGCTAC	TTCTTCCTTC	CCTTCCAAAA	5340
TGGAACTTC	ACCTTGCATA	CCTAATACAC	CATCCGCAAA	ACTCCCTCGT	GCATCCTCAG	5400
GAACGTCTTG	AACAAAGTCT	TTCAAATCAT	ATTCTTGAGG	AGCTAGCAAG	GTCTGGGCAG	5460
AATGTCTCAA	TACCAGGTAG	GCGTATTGG	TATTTTCAGG	GTGTTGTAGT	AATTCCCAAA	5520
TTTTTGCTCC	ATCGGTGATG	TCGACTGGCA	AAATGTTATT	TAGGAAGAAA	GATAAATTAA	5580
GAAAAATCCA	AGTCCCTGCA	AAATACCAGC	TTCTTGCTAA	AAATCCAAAC	AATATCGCCA	5640
ATAATATCAA	GCCGAGATGA	ACCATCAAGC	CTCCTGAAAG	CATCAGGATG	ATTCTTTGAT	5700
CGCTTTCATC	CTCTTTTAAA	CCAATGTATT	GAGCACCAAC	ATTTTTCAGA	ATGGCTGTTC	5760
TACTAAGATG	AAACCTGCCT	GACTTTTGG	TCAAAATAAA	ATGTCCTAAT	CCAAAAGCCA	5820
CCAGCCGATA	GCCTGTCAAG	TAGCCACAAA	AAGCATGACC	CAGCTCATGA	AGAATAAAGA	5880
TTAAATACAT	GCTTAGAAGA	GCGAAGGCAT	AACCAAAAGT	AAAGGCTAAA	ACTGCGGAAT	5940
ACCCCAACTC	TGCAAATGCG	ATTGTTCCAC	AAGCAAAAGC	TAGCATAATA	AAGACAACAG	6000
CTAGCACATA	AACCAAAATA	GTCCCAATTT	TCTTCATAAC	ACCTCCAACC	AACTCCTAGT	6060
ATCTTGATA	AGGATAAAAT	TCTCCCTTTT	CCAAGCCAAT	TTTTCTCTCT	TCAAAGACTT	6120
CTTGTTCCA	TTCCATGACA	AATTCCTCTG	CTTCTGGGTC	TTCCAAAAAG	TCCATGAGGA	6180
CATCTAGCCC	AACCTCAGCA	GTATCTTTAA	GGAAAAGCGC	AAAATAAGCT	AAAAATTAC	6240
GGGAAAATCC	TTTTTTAGGC	AGGTAAGGAA	TAACAGTCAA	ATAGTCTTCC	TCATTGACTG	6300
TTGACTTGGC	AGGATTGTAG	AAAAGGACCG	CTTCCTCAAA	AAGAATGTCA	TCTGATGAAA	6360
CCTCTCCGTC	TTCATCCACC	ATCTCCACAC	CGCAGCATTT	TGCGCTTCCA	ATAGAAAAC	6420
CACTTCTACC	GCATGGTTGC	GTTTGTCCCA	GCTAATCTCA	AAGTCAAAGG	GAAAGTTCTT	6480
GTCCAACTCT	TCCTCTAAAA	TATCTAAAAA	TCCGTATGTT	GCCATTTTGT	CCTCTTTCTA	6540
TGCGACTCTT	TAATCGCCCC	GATTGCTCGG	AAATATGCTA	AAATAGATAC	TACCATCTTA	6600
CCACAAAATT	ATTTTATGTC	CTAATTATAC	CATATTACCT	CATTTAAACC	CTTGGTATCA	6660
GTGATTTTCT	TAAAAGTCTG	ATTTCTTCAT	TTCTCATAAA	AATCAATATA	AAAAGCCCTC	6720
GAAAGGGCTA	ATAAATCTAT	AAAATCAATA	GGCGAGTAAC	TAGCACAAAG	GGACGTGCTT	6780

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TTTTATTGAC TATTACCACG ATACCACGCT TAATCTTAGG CTTGAACTTT CTTATCTGCA	6840
ATAGCGTCTG TCAAAGTCTG AGAAAAGTTA AGCCCCATTT CTCGTCCCAA CTTATCTGCC	6900
CATTTTGGTA TGGTCAAAGT CTTTTTAATG GGTTCCTGAC TTCCTAGGTA TTCTGATACA	6960
TCAACAGATA CCATAGAAAT AAAAGATTTA TCAAGGTCAT AGGTTGACAC GAAATCTTCA	7020
TCATCTTTAA AAGGATCATT ATCAATTAAA GACAAGCTAT TGATATCTGA TGGCTGAGGT	7080
AACTCTCCAT CACTCTCTAT CAAATCTGCA ACAGTTATCC CTAGCCACTC CGACCCCAT	7140
GCCAAAGCCT CAGAAATCCC CTCTCCTTGT GTAGCTGAGT ATTCAAAATC TGGGAAATGG	7200
ACAAAATAAG TCGCTTCTGT TCCGTCTGTG TCGTCATAAT AAAATAAAGC TGGATACGTA	7260
ACTAACATTT CACTACCTCC ATATCAAAAA GCAGGGACTG AATTTTACAA CCCAGCTTGC	7320
TTTCTTATCC CTCTTTCAGT GTACTTATTC AGCTCACCAT GAAGGATTGT GATAGGTCTT	7380
TCCCCTTGCT TTTCCATTTT AATATGGGAG CCTTTACCGC CTCTAGTCTT TATCCAACCA	7440
TGGGCCGTAA GGAGTTTAA CACTCTTTTT TGTGTCATAG GCATAGCGCT TTTACCTCCT	7500
GACAACACCA TTATAACACG TGTTACACGT ATTGTAAAG AGTGATACTT ATTATCTAT	7560
TATACATAAA AGCCCTAGA TGTGGTTCTA AGGGAAGCCA ATTTATTCAT ACCTATTTTT	7620
CTAATGAGTA GTAAAACTG CTTCTTTATC GAGCAATTCA TCATCTGTAT AGTCAATTGT	7680
AAAAGTATCT CGATCTAAGA CAGATTGAGG CGGAGTTGAA TGAATCATAG GAACACTGCG	7740
TACTCTATAT TTTTATCTC CAATTTTAC AAAGTGATAC TCTTCGAAAA TCAAATTCAA	7800
ACCACGTCAA CGTCGCCTTA CCGTACTCAA GTACAGcCTG CGGCTAGTTT CCTAGTTTGC	7860
TCTTTGATTT TCATTGAGTA TGATTAACTC TCAAGTCTTC GAAATCAGGA TTTTCAACAG	7920
TTATTACAAG GAGGCGATTT ACTACTTCAA AAACATCAAT TATTCTATTT TTCATATTTT	7980
TTCAACCCAT TATTAGAATG AACTTCTTGG TAAGCAAAAT CAAGTTTAGA TTTAATGTTT	8040
TCGTACAAAT CTAAAATCTC TTTTGGAGTA TCTTCCCGGA AGAAAAGTTT TCTTTTCCCT	8100
GAAATAACTT GATCACTAAG AATCCAATGA CGAATTTGTT TTGTAAAAAT CAAAATTTCC	8160
TGACTTGGTA GTTCCATCAT TTCCATTGCT TATCACCTCT CTTTTCATTA TAGTTCATAC	8220
AATGACATTC AGCAATATTA TTTCTCAAGT CAGCACTTCC ACTTCTTTAG GCTCAACTAT	8280
CCTATTTTGA GCTTTAAGGA AAATCAAATC TCTCATGCTG ATACCTCTCC TCATTAAATT	8340
AAATAGTAAA AAAGATTCTA TCTCACTCCC TGATTATTAC AAAACCATTG AAATATCACA	8400
ACTAATAGGC TAGAATGGAC ATAGTAAGAT ATAGTAGATG AGTCATTCTA CTCAAATCCA	8460
CGTTAGAAAG GACTGCTATG CCAGACAATC TCGCCGTTCTG CATGCGCCCh GG	8512

(2) INFORMATION FOR SEQ ID NO: 130:

895

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 2869 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 130:

CTCGTTTCAA GGTTGAGTCT CTTGCAAATC TTGTTGCGGT TCTTCCTTTT GCCAAGGCAT	60
CTCTCCCATG GTTGGTGCCa GCCATTGTTG GAATCTTGCT CTCATTGGTT CTACCAAACA	120
AGCAAGAAAG CGATGTTTTT GAAATGGAAT AATCACTTAA ATCACTTTTG TAGCCAAGTC	180
TACAGGAGTG ATtkTCTTTT TTTATCCGAT GATAAATGTG TTATAATAGG TAGCGAAAGA	240
GGTGAAGAAA TGAATCAAAC AGTAGAATAT ATCAAAGAAC TGACAGCCAT TGCGtCGCCA	300
ACAGGCTTtA CTCGTGAGAT TGCGGACTAT TTAGTCAAGA CTCTAGAAGG TTTTGTTTAC	360
CAGCCGGTTC GCACATCCAA GGGCGGTGTC AATGTAAC TAATAAGGTCA AAATGATGAG	420
CAACATCGCT ATGTGACTGC CCATGTAGAT ACGCTTGGTG CTATTGTCCG TGCTGTCAAA	480
CCAGACGGCC GTCTCAAAAT GGACCGTATC GGTGGCTTTC CTTGGAACAT GATTGAAGGA	540
GAAAACGTGA CCATTTCATGT GGCTAGCACA GGTGAAAAAG TATCAGGAAC CATCCTCATC	600
CACCAAACCTT CTTGCCATGT CTATAAGGAT GCAGGAACTG CAGAACGCAC GCAAGACAAT	660
ATGGAAGTGC GTTTGGACGC CAAAGTAACT AGTGAAAAAG AAACTCGTGC TCTTGGCATT	720
GAGGTCGGTG ATTTTATCAG TTTTGACCCA CGAACTGTCG TGACAGAGAC AGGTTTTATC	780
AAGTCTCGCC ATTTGGATGA CAAGGTCAGT GCGGCGATTT TGCTCAATCT CCTTCGCATT	840
TATAAGGAAG AGAAGATTGA ATTGCCCCGTA ACAACTCATT TTGCTTTTTC AGTCTTTGAA	900
GAAGTGGGAC ACGGTGCAAA CTCTAACATT CCTGCTCAGG TAGTAGAATA TCTGGCTGTG	960
GATATGGGAG CCATGGGAGA TGACCAGCAA ACAGACGAAT ATACAGTGTC TATCTGTGTC	1020
AAGGATGCTT CTGGACCTTA TCACTATGAC TTCCGTCAAC ATTTGGTGGC TTTGGCGAAA	1080
GAGCAAGATA TTCCATTtAA GCTGGATATC TATCCATTTT ATGGTTCGGA CGCTTCAGCG	1140
GCTATGTCTG CAGGGGCAGA AGTCAAACAC GCCCTTCTCG GTGCTGGTAT AGAGTCTAGC	1200
CATTCTATG AGCGTACCCA TATTGACTCG GTGATCGCAA CAGAACGAAT GGTCGATGCT	1260
TATCTTAAGA GCACGTGGT GGAATAATAT GTGCCTTATT TGTCAGAGAA TTGACCTCAT	1320
CAAGAAGGAA GAAAATCCTT ACTTTGTCAA AGAGTTGGAA ACAGGCTATC TTGTGGTTGG	1380
AGACCACCAG TATTTTGAAG GCTATAGTCT CTTTCTAGCC AAGGAGCATG TCAGCGAATT	1440

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GCACCATTTG AAAAAGGAGA CAAGACTCCG TTTTCTAGAA GAAATGAGTT TAGTCCAAGA	1500
GGCAGTTGCC AAGGCCTTTG CTGCTGAGAA AATGAATATC GAACTGCTAG GAAATGGCGA	1560
TGCTCATCTT CATTTGGCATC TGTTCACG ACGGACAGGT GATATGAATG GTCATGGTCT	1620
CAAGGGTCGT GGACCACTCT GGTGGGTTCC CTTTGAAGAA ATGACAGCAG AAACCTGCCA	1680
AGCAAAACCG GATGAGATTA AAAGATTAGT CAAACGTTTA TCGTCAGAAG TAGATAAACT	1740
ATTAGAAATA AAGGAGTAGA AATGAAGAAA AGATACCTAG TCTTGACAGC TTTGCTAGCC	1800
TTGAGTCTAG CAGCTTGTTT ACAAGAAAAA ACAAAAAATG AAGATGGAGA AACTAAGACA	1860
GAACAGACAG CCAAAGCTGA TGGAACAGTC GGTAGTAAGT CTCAAGGAGC TGCCCAAGAG	1920
AAAGCAGAAG TGGTCAATAA AGGTGATTAC TACAGCATTC AAGGGAAATA CGATGAAATC	1980
ATCGTAGCCA ACAAACACTA TCCATTGTCT AAAGACTATA ATCCAGGGGA AAATCCAACA	2040
GCCAAGGCAG AGTTGGTCAA ACTCATCAA GCGATGCAAG AGGCAGGTTT CCCTATTAGT	2100
GATCATTACA GTGGTTTTAG AAGTTATGAA ACTCAGACCA AGCTCTATCA AGATTATGTC	2160
AACCAAGATG GAAAGGCAGC AGCTGACCGT TACTCTGCCC GTCCTGGCTA TAGCGAACAC	2220
CAGACAGGCT TGGCCTTTGA TGTGATTGGG ACTGATGGTG ATTTGGTGAC AGAAGAAAAA	2280
GCAGCCCAAT GGCTCTTGA TCATGCAGCT GATTATGGCT TTGTTGTCCG TTATCTCAA	2340
GGCAAGGAAA AGGAAACAGG CTATATGGCT GAAGAATGGC ACCTGCGTTA TGTAGGAAAA	2400
GAAGCTAAAG AAATTGCTGC AAGTGGTCTC AGTTTGAAG AATACTATGG CTTTGAAGGC	2460
GGAGACTACG TCGATTAATA CTCTTCGAAA ATCTCTTCAA ACCACGTCAG CGTCGCCTTA	2520
CCTACTGACT GCGTCGGTTC TATTCACAAC CTCAAACAG TGTTTTGAGT cGATTCGTCA	2580
GTTTTATCTG CAACCTCAA GCTGTACTTT GAGCAstGCG GCTAGCTTCC TAGTTTGCTC	2640
TTTGATTTTC ATTGAGTACA AAAAGTAAAC TTTTCTCTTG CAATTCCAGA TAAATAGTGT	2700
ATAATGGATG GGTATGTGAA AACATACTT GTGGGAGGTA AAAATCTCTA ATTACCGCCA	2760
AAACCACAAA GGAGGATTTA AAAATGGCTA AAAAAGTCGA AAAACTTGTA AAATTGCAAA	2820
TCCCTGCTGG TAAAGCTACA CCAGCTCCAC CGGTTGGACC TGCTCTTGG	2869

(2) INFORMATION FOR SEQ ID NO: 131:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 6186 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 131:



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CTGAATCCCT TATAGGAGTC CAGTAACTTT TTAGCCTCTA CTTTGCCTTC ATAGGCAGCT	60
TCAACATCAT TAAAAAAGA AIGCACTGAA GCAAGTTCCT CAGTGCTCCA CGACAAATCT	120
AGTGGGTAAAC TATACTGTTT GTTCATTAAC TAATACCAGC TCTCATTCTT GCTTCTTTTA	180
GTTCTTGCTT ACGATAACTA CGAGGGAGAA AAGCACGAAT CTCATCTTCA TTAAAACCGA	240
TTTGCAACG CTTGGCATCA ATAATAATG GACGACGAA AAGACTAGGA TACTGCTCAA	300
TCAAATGAAG CAATTCCGAT ACCGAAATAC TCTCTACATC AATATTCAAT TTTTGAAAA	360
TTTTTGAAAG AGTTGAAATG ATGTCATCAG TACCATTTTC GGTCAAGGAA AGGATGTGTT	420
GCAATTCTTT TCTTGTTAAA GGACTGGTCA TAATATTGTG TTCCACAAAG GGAACCTATG	480
TTTTTCTAAC CAGGCCTTAG CCTTACGACA TGATGTACAG CTCGGTGATA GAAATAGTGT	540
AATCATGCTT TTCTCTCTT ATCTATACTT TGCTACTTCT ATTATACAAA AAAATAAAGC	600
GCTTGACTAG GGATTTTGTAG AAAAAAGCC TATTTTTCAG AAAAAATAG GCTTTTTCG	660
AACGATTGAC ACAATTGGAT TTGGTTAATT CACTCTTAAC GATGGTTTAA AACGATATAT	720
ATTTTATAT ATGTAAATTA AAAACATCTT TCCTTTCACT TCCTACGACT TTTCAGATAC	780
AGATAGCCAA AGAAGTTTTC ATAGAGGGCA AAAAAGAGGA GGAAGGCATG AAGAAAGAAG	840
GTCTCTGGCA AAATCATAAT AACAGGATCC TTGGCTGGAT CAAAAGCCA GGTATCATCT	900
CCCACAAAGA GAATTTGATG GAAAAGAGTA AAGAATTGGT CAAAACCAAT CAAAACCTCC	960
CCAAGTCCAA TCATCACAGG TAAGACTACT AGAGCCAGGA GACTTTTTCG ATAAAGAGAC	1020
AAAAAGTCCT TTTTCACAAT CCTATTGACA AAGACATAGA AACTTGGCAG TGTCAC TAGA	1080
GCTACTAGCT GAACCAAATG AAAGAGATTC TTGACCACTG CGAAATGGTG CAGACCAGCT	1140
GCTGACGAAC GAAAATCAGG CATCTGTAAG ACCTGACTAA AAGGATTGGT CAGATAATTC	1200
ATCAAGATAT GAAAATTGTA TTGAATGGTT TCTGGTTTAA GATAGACTCG ATTCGTTAAG	1260
TTTAGCCACT GAATCTCCAT AGGATAGAAA ATCCAAGCCA GATAAATGGT CAGAAGGATG	1320
GAGAGGGAGA GGAGAAAGAG CATAGAGCCC CAAAAGATCA ATTTAGTTTTT CATCAAAATC	1380
CCACTCCGCA AGGCTAGAAA CCACATGTGT CGGTGCGATT GGCAGGCCAG CTACTTCTTC	1440
TGCCTTAGTA AAACCTGTCG TCACCAAGAG CGTTGGAATG CCATTGTCAA TCCCAGCCCG	1500
AATATCAGTC AAATAATTGT CCCCACCAT GATTAATCTT TCACGTTCCA AACCTAAGTG	1560
CTCAACCGCC TTGTCCATAA TGATGGCATT TGGTTTTCG ATATAAACCG GCTTCACTCG	1620
TGTCGCTACT TCAAGCAGCG TAATCAGTGA GCCAGCACCT GGCAAAAGAC CGCGTTCCGT	1680
CGGGATGTTG AGGTCAGGAT TGGTTCCGAT AAAATGGGCA CCCTTTTGAA TAGCAAGAGT	1740

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TGCTGTGGCA	AATTTTTCAT	AGTCGACTTG	CCAATCCAGA	CCAACTACCA	CGTAGGCAGG	1800
TTTTTCCTTG	TCTTCCACAT	AACCAGCCGC	CTTGATGGCT	TCCTTGAGTC	CTGCTTCTCC	1860
GACGACATAG	ACGGTCTTTT	CAAGCCCCAA	ATCATTCATA	TAGTCGATGG	TTGCCAAAGT	1920
CGCTGTGTAG	ACAGTCGATA	GGGGCGTATC	GATATTAAAA	TTCTGAGCCA	ACATCTCCTT	1980
AACACTCTCT	GGAGTGC GGG	TTGTATTGTT	GGTTACAAAG	AGATAGGGAA	TGTCCCGCTT	2040
TTGCAATTCA	TGAACAAAAG	TCTCTCCAGC	AGGGATTCCG	TCTTTCCCCT	TATAAATGGT	2100
TCCGCTCTAA	TCAATTAAAT	AGCCTTTATA	TTTCATCTAT	TTCTCCCTAA	GCCTTTTTTA	2160
TTTCTTGCCA	AGTAATGATT	GCTTGGGCAT	TGATAACCCC	ATCACTTGTA	ATTTTCATGCT	2220
TGCTTTCCAG	TCCAGTCCGT	TCAACAGCCG	ATGTAATCAC	CCCACCTGGT	CGAACTTCCT	2280
TGACATACTT	GAGGTGATT	TTCTTGGGAA	TATAGTGGGT	CAAAAAATCC	GCTCCCATGA	2340
CCTCAAAAAT	CCAGTCCAAG	TATTTACTGT	TATTGACATG	ACCATTTCATA	TCCAAGTCGT	2400
AAAAACGAAC	ATGGTAATCC	TTGCTGATCG	GTTCTTCCAA	GGACTCATAC	TTCGGTCCAC	2460
GGATAAGTTT	TTTATCAAAA	TCAGACTGGT	AAGGAGCCAC	AATCTCAGGT	TCAACAACAT	2520
GGACTTTTCG	ACTGTCGCGG	TCCATGAGAA	CAAAGGTCGC	CATCATGTGG	ATGAGCTCCT	2580
GCTCCGCTTC	ATTATAAATA	GTAAAGCGAC	GGTAGCAAAA	AAGTCGATTG	TAGCTCAAGG	2640
CTTCCGTTTC	GATGGTAATT	TCTTCCGCAA	AACGAGGCAA	ACGAACCACC	TCAATATCAT	2700
ATTCTACGAT	AATCCAGACC	AGATTATATT	CTTCCAAAAT	GGCCTTATCA	CTAACTCCCA	2760
GTTCAATCGA	CTGCATCCCT	GAAACTTGCA	GTGACAGCAA	AATCACATCT	GGAAGTTTGA	2820
TATGACCGTT	CATATCAGCC	ATATCAAAAG	GAATTTTCAT	TTTCATTTGA	TAAGTTAAGC	2880
CCATGATCCT	ACTCCAAAAT	AAATCGTTCT	GCTACAGTAT	CTCCCAAAAA	GAGACCTCTC	2940
TTTGTCATGC	GAACGTGGTC	ACCCTCAATC	TGCATGAGGC	CTTGTGTAAC	CAAATCTCTG	3000
ACAATTTCTC	CATAAAGTCC	AGCAAAAGAC	TGTCCAAATT	TTTCCTCAAA	TCGCGCCATG	3060
GAAACCCCGG	ATTCTTGCG	GAGTCCCAAG	AACATTTCTT	CTTCCATTTG	CTCCTTTTGA	3120
CTCAGGTGAT	CTTCTGTAAT	ACAAGCATTG	CCTTCCTCAA	CCGCACTGAG	ATAATGACGA	3180
ATGGGACCAT	GATTTTTATA	GCGTACTCCA	TTGACATAAC	CAGATGCCCC	TGCACCAATA	3240
CCATAGTATT	CAGCATTGTC	CCAGTACATG	AGATTATGAC	GACTTTCAAA	ACCGGGTTTG	3300
GAGAAATTAG	AAATCTCATA	ATGCTCAAAA	CCCCTCGCT	CCAGCTCTGC	AATGATGTAC	3360
TCAAACATCT	CCGCTTCTAG	TTCTCCTTA	GGCAGAGGCA	ATTTCCCACG	TCGCATCCGG	3420
TTCATAAAGA	CCGTATGGTT	TTCTAAAATC	AACTATACA	AACTCATGTG	GGGAATATCC	3480
AATCCAATGG	CTTTAGCCAC	ATTTTCCTTT	ACTTGCTCCA	TGGTCTGACC	AGGCAGAGCA	3540

TAAATCAAAT	CAATGGAGAT	ATTGTCAAAA	CCAGCCAGTT	TCAGGCGATC	GATATTTTCA	3600
TAAATATCCT	TCTCCAAATG	ACTGCGCCCA	ATCTTTTTC	ACATCTTATC	ATCAAAGGTC	3660
TGGACACCTA	GCGAAACACG	ATTGACAGCC	GAATTTTTC	AAACAGCTAT	CTTATCCGCA	3720
TCCAAATCGC	CTGGATTGGC	TTCAATGGTC	AACTCTTCCA	AGACAGACAA	ATCCAAGTTT	3780
TTAGTCAAGC	CATTTCAGTA	CACCTCCAGT	TGCGGAGCCG	ACAGGGCTGT	CGTGTGTCCA	3840
CCACCGATAT	AAAGGGTTGA	CAACTTTTCA	ATATCATAAG	AACGAAACTC	TTCCAGCAGA	3900
TGCTCTAAAT	AGCTGTCGAC	TGGCTGATTT	TTGATGAAGA	CCTTTGAAAA	ATCACAATAA	3960
TAACAAATCT	GGGTACAAAA	TGGGATGTGC	ACATAGGCTG	ACGTTGGTTT	TTTCTGCATA	4020
GTAATTATTA	TACCACAAAG	ACTAGATTCC	AGATAAAAAT	CACCATCCCC	AGATACATAG	4080
TCCGTCCGGA	GATGGTGATG	GTTTATTCTT	CTGTTATATC	AATCACAATC	TCTTCTGAGT	4140
CATCAAGAGC	TTTCGGCTTTT	TCTTGCCATT	GCTCCTGAG	ATTATTTAAT	TGATTTTGTG	4200
ATGCTTCTGT	CGCTTGAAAA	GCATAGGATT	TAGTTTGAGC	AAGTATACTG	TCCACAGTGA	4260
TTTCACCTGA	CTCAACCTGT	TCTTTTGT	TCAGAACAAA	ATCTGTAGCC	TGCTCCTTAA	4320
CTTCTGTCAG	TTTTTCACAG	ACTTGCTCCT	TGGCATACTC	CGGATCTTCT	CTCAAATCAT	4380
CTAGAAAATC	TTGAGCCTGA	CTGCAAACTT	GTTTGCCCTT	ATCATTGTGT	AAAAACAAGG	4440
CAAGAGCTGC	ACCTGAAACG	GTTCCATAAA	GGATTGAGGA	TAATTTACCC	ATAAGGATTC	4500
TCCTTTTTTA	TTTTTTGAAA	AATTTACTTG	CAAGACGAAG	AGCTGACAGA	CTTGCAACCAG	4560
TCTTGAGTGT	TTTTGAACCA	GCTGATGAAG	CTTCTTGCT	CAAGACACGC	GCATGGTCAT	4620
TGAGGTCTGA	AACAGATAGA	GATAAATCTG	CAACAGCACT	GAAGAGTGGA	TCAATCGTAG	4680
CCACCTTGAC	ATTGATATCA	TCTGCCAAGA	CATTGACCTT	AGCCAACAAC	TCATTGGTGT	4740
GATGCAAGGT	CACATCCACA	TCTGAAGTCA	AGGTTTAAAT	CGTCTTTTCT	GTTTCATCGA	4800
TGACACGACC	AAGCTTTTGT	ACAGTAATGA	TCAGATAGAC	CAAAAAGACA	ATCAAAGCTA	4860
GGGCAACAAG	AATATATGCA	ACTTCTAACA	TTTAGTTTTC	CTCCTCTGTA	ATATAGTAAG	4920
GGGCCTTCTT	TCGATTTTGA	TAAATAACGA	TCATTATACC	GAGACCGATA	AGGACAACCTG	4980
ACAGCCATTG	GGACACTCGA	AAGCCGAAGA	ACATGAGACT	ATCTGTTCGC	ATACCTTCGA	5040
TAACCATACG	ACCGAAACCA	TACCAAATCA	AGTAAAAGGC	CGTGATATGA	CCTCGTCTGA	5100
GACTCTTCCA	TTTCCGTCTA	AAAATCAGAA	TCAAGGCAAA	GCCAAGCAGA	TTCCATAGAG	5160
ACTCATAAAG	GAAAGTCGGT	TGACGGTAGC	TCCCCTCAAT	ATACATCTGG	TCACGGATAA	5220
AGCCAGGTAG	ATAATCCAGA	TTATCCACTG	TTGCACCATA	AGCTTCTTGG	TTAAAGAAAT	5280

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TACCCCAACG CCCCAAACTT TGAGCAATCA TAACGCTAGG CGCCGCAATA TCTAGAAAAT	5340
CCCAAGTATT GATGAGTTTA CGGTCAGCAA AGATATAGAG CACAAGAGCC CCAGTTATCA	5400
AACCACCGTA AATGGCCAAA CCACCATTCC AAATGGCAAA AATCTCTCCT AAATTCTGAC	5460
TATAGTAATC AAATCGGAAA ATAACATAGT AGAGACGAGC TCCTAAAATA GCCAAGGGAA	5520
AGGCTACTAA GATAAAATCT AAAATATCGT CTGGTATGAT CTTCTTTCTA GGTGCTTCTT	5580
TCATGGTCAA ATAAACCGCA AGAATCAAGC CTGTCACAAT ACATAAGGCA TACCAACGAA	5640
TGGCTAGGGG TCCTAGTTGA ATAGCAATTG GATCAAGCAT TTTGCACCTC ATTTCGAGCG	5700
ATTAGACTTG TCAGTCGTTT GTCGAACAAA CGGGTCGCAT CAAAGCCCAT TTCCTTGGCA	5760
CGATAATTC A TGGCAGCTGC CTCAATCACA ACAGAGATAT TACGACCTGT TTTAACTGGA	5820
ATACGAATAC GAGGAATGtA CGCCAGAAAC TTCAAGTTCC TCTGCATTAT TTCCAAGACG	5880
ATCAAAGGTC TTATGCGTAT CGTAATTTTC CAAATAGACA GCAAGCTGAA CCTGTGAAGA	5940
ATCCTTGACA GCACTCGCAC CGTAGAGACT CATAACATCG ATAATACCAA CCCCACGAAT	6000
TTCAATCAAG TGTTTCAAAA TTTCAGCTGG TTCACCCAG AGAGTAATCT CATCCTTGGC	6060
AAAGATATCG ACACGGTCAT CGGCTACCAA ACGGTGACCA CGTTTGACAA GCTCAAGACC	6120
TGTCTCGCTC TTACCAATTC CACTATCTCC CTGAATCAAG ACGCCCATCC CATAAATATC	6180
CATCAA	6186

## (2) INFORMATION FOR SEQ ID NO: 132:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9541 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 132:

GAAAATCACA ACCCTTTTGG CAAAATTTTT GAGATTATTT TCACAAACTT GATTTTTC	60
AGTATACTCA ATAAAAATTA AAAAAATCCA CTACGTCAAG GCGAGGCTAA TGTGGTTTGA	120
AGAAATTTTC GAAGAGCGTG AATGAGTATC ATCTATAGTA AAATAAAAAA ACTGAACAAT	180
TTGGTTGGGG ACAGCCAAAC CAATTTCTCA CAATGTTTCA GAAACAAGGG TGTGCTATTC	240
CAATTTTCAGC CTACTATAAC TGTCATAGAT TGCTGAAACA AAGTCTAGGT AAAAGTCTTC	300
ATAATAAAAA GACCTCCTAT CAAGTGTTC AAAACTTTGA TAGGAGGTCT TGTTTTGTGA	360
AAATATTTAT CAAATTTTCT ATACAAGTGA GCTGTTAGCC AGGTTCTTTC TATTCTTTCA	420
ATTTCAATGA ATGGATTTTT TACTAATACT CATAACTGGG AATTTGCTCTG TGTA AAAATA	480

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GCGAGATAGA	TGGTATTTAT	AAAACACTCA	AGACAGCTAG	ACTAATATCA	TTTAAAACAT	540
TATCTTCTTT	TGAGCGACTG	TTGGTTACCA	ACATAGCTAA	ATTTCCGTGA	TTTTCAAATT	600
GATAGGGTTC	TGATTTAGCA	TTCAACAACCA	CCAAGAGGTG	TTCTTTGCCG	TGAACTTCAT	660
AGATAAGGTA	GCCGCTATGT	TCAATCGCAG	AATGCACAAA	GACATGATGG	TAAATTTTCAT	720
CATAGCTAGA	GTAAGAAAAG	GCACCAGTTT	TTGTCTTCAA	TCGGATGACT	TGACGGATAA	780
ACTCAATACT	GTCTTGACGC	TCATTAATCA	AGTTCCAGTT	CACTTGGTTC	ACACTGTCAG	840
GAGCATTATA	GCTATTCATC	GCACGCTCTC	TATCATCATG	GGTCAACTCA	CCATTTTCAC	900
CAGTCGCAAC	CAGTTTGGTA	CGACCAAATT	CTTGACCGAT	TTCCATAAAG	GCCATCCCCT	960
GCATGAGCAG	ATTCATGGCT	GTGGCAGTTT	CGACCTTGCG	CATGATTTGC	TCTGAACTTT	1020
GGTCTGGATG	AAGGGTTGCC	AATAAATCGT	GAAGATTGTA	ATTGTCATGG	GCTTCTACAT	1080
AGTTAAGCAC	CTGATTTGGA	TGTGTATAGC	TTCTTAATTC	ACGACTTCCT	AGGATTGCTT	1140
TAGCTAGAAT	TGGCTCTGTC	GCAGCACCAC	TGACAAAACC	TGACTTGATA	GCACCATAAA	1200
CTTCTCCCCC	TTTGACAGCA	TCGCGCTGAT	TGTCATTAAA	GAAACCAATA	TTTGGCATCT	1260
GGTAGGCATT	GTCCTTCTTG	GCCTTATCAT	AAGGGGCAAG	ACCTGTTCCC	ATATCCCATC	1320
CTTCTCCATA	GAGGATAATG	TTGGAGTCGA	TTTCATCCAA	GCTTTGACGA	ATCATCTGCA	1380
TGGTCTTGAC	ATCATGAATC	CCCATCAAGT	CAAAACGGAA	GCCGTCAATA	TTATATTCTT	1440
GCACCCAGTA	TAGAAGAGAA	TCAATCATAT	ACTTGCGAAA	CATTTCTGTG	TCACTGGCTG	1500
TTTCATTTCC	AACACCCGTT	CCATTCTGGA	AGGTACCATC	TGGATTGATA	CGATAATAGT	1560
AATCAGGGAC	TGTTGTTTGG	AATGGTGCAT	CAACAACCTGA	GAAGGTATGG	TTATAGACTA	1620
CATCCATAAT	GACTCCAATA	CCCGCATCGT	GATAAGCTTG	AACCATCACC	TTCAAATCAC	1680
GAATGACCTG	AGCTGGATCA	TCTGGATTAG	TTGAAAAACT	AGTTTCTGGC	GCGTTATAGT	1740
TTTGTGGATC	ATAACCCAG	TTGTAGGTTA	CATTTCATC	CTCATCGTAT	TCTTTATCAC	1800
GGTCTGCAAT	TGGTTGCAAT	TGAACATAAT	TGTAGCCCAG	CTTCTTGATG	TAATCAAAAG	1860
CAGTTGACTG	GCCGTATTGG	TTAACTGTTC	CAGCCTGAGC	AGCACCCAAG	AAAGTTCCTC	1920
GAAGATGTTT	ATCTACACCC	GATGTAGGTG	ATTTAGTCAA	ATCACGAATG	TGCATTTTCA	1980
AGATAACTGC	CTTACATGGA	TTTTCCAAGC	GCCAAGTAGC	CTCCGAACCG	TGCTTAACCT	2040
CGAAGTTTTT	AACTTGCTTT	TCTACATGGC	TCAGAATAGC	TGAACGTTTG	CCATCAGGGC	2100
TGGTCGCGAT	TGTATAAGGA	TCACGTGTCA	GTGTTTGGTG	ATGAGGGAAT	TGGACTTGAT	2160
ACTGATAAGT	CTTACCTACC	AAATCTTCTT	CAACATCCAA	ACTCCAGACA	CCGATTGTAT	2220

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TGTCCTTATG ATTATAAGAG TAGCTATTGC CTCTTTTCAT CTCAAAAGTC TTCCAAACGG	2280
GTGCATCATT AGCAGCTGAT TCATAAACGA CAACTTGACAC TTCTGTCGCT GTAGGTGACC	2340
AGAGAGAAAA ATGAGCCTGA TTGTCCTCTA CACGGCAACC CAATTCTCCT TGGTAACCCC	2400
AATGATGATC AAAACTAGCA CTGTTAATGG CCTTATCAAA GGCAAAAGGA TTTTGATTTT	2460
TATAGAAAGG ACTGGCAATA GCAGGATTTT CAGAGTAATA AATCCTATCA TCGCCTTCCA	2520
AAATCCAGAC CTCTGTTAAT AGGGGATAGT GATTAAAACG GATAGAATAT TCTTTACTAG	2580
TTTGACCTGT ATGAACCACA AAATTCAAGC TTTCTATAAC ATGTGAACTT GGGTGTTCOA	2640
AGCTAAATAA AGCTCCAAAA TAATCTTCTT TGTAGGTTAG CAAATCAATT CGTTGATCCT	2700
GACTTTTAC AAAGGAGCAA GTGTCATATT CTCCATTCTT ACGATGGTAA TGAATGCGCA	2760
TAGGGTAGTT ATACATTTTT TATTTTTCCT TTTTACTTTG TTTCTATTTC ACTAATAAAT	2820
TTTTGTCAAT CTCGTCTCAA TTAACAGACA TAGTCATATT CTCTAACTC TGTTTTTAAA	2880
CGATCCATTA CAAACTTTCT AGCCATGCCT CATCTCTGAC CTGGATACCA AGTTCTTGTTG	2940
CTTTTTCAG TTTACTTCCA GCGTCTGCAC CTACCACGAC GAGGTCGGTC TTTTLAGAAA	3000
TACTACCTGT CACTTTGGCA CCCAGACTTT CGAGTTTACT TTTAGCTTCT GAGCGCTTGA	3060
GTCGTTCOA TTTTCCTGTC AATACCACGG TCAAACCTGA CAAGGCCGCA TCCGCTACTA	3120
CCGTCTGTCC TTTATAGTCC AGATTGACCC CAGTTTCTTT CAATCTCTG AGCAGAATTT	3180
CAGAGCCTTC TGTCGAAAA TAAGTCTGAA GACTTTTGGC AATCACGCCA CCTAGACTTT	3240
CAATACTAGC CACTTCCTCT GAATCTGCCT GAGACAGATT TTCAATTGAA TGGAAATATT	3300
GAAGTAAAAG CTGACTAACC TTGCTTCCGA CATGACGAAT TCCCAAACCA AATAAGAGCT	3360
TCTCGGCAGA ATTTTCCTTT GATGCTTGGA TAGCCTGATA CAGTTTAGCA GCGGACTTTT	3420
CCTTAACTCC CTCTAAAAGG AGGAAATCCT CTTCTTGCAA ACGATAAATA TCCGCCACAT	3480
CCTTGACTAA ATTAGCAGCA AAAAGCTTCT CAACAATAGA TGGACCAAGG CCTGTAATAT	3540
TCATAGCATC ACGAGAAGCA AAGTGAATCA AGCCTTCCAT GATTTGAGCA GGGCAACGCG	3600
GATTGATACA ACGTAGGGCC ACTTCATCTT CAAAGTGCAA CAAGTCAGAG TTACAACCTG	3660
GACAGTTTGT AGGGATATCT AGTTTTTCTT CAGAAACCCG TTTGGACTCT ACCACACGTA	3720
AAACGGCAGG GATGATGTCA CCAGCCTTAT ATACAATGAC CGTATCGTCT TTTCCGATAT	3780
CTTTTTCAGC AATATAATCT ACATTGTGCA GGGTCGCACG GCTAACAGTC GTACCGGCAA	3840
GTTGTACTGG TGTTAGATTA GCAGTTGGAG TTACAACACC GGTACGGCCA ACTGTCCAGT	3900
CAACTGATAA GAGTTGAGCT TCTTTTCTT CGGCAGGGAA CTTGTAGGCT ACTGCCCACT	3960
TTGAGACCTT AACTGTAAAA CCAAGTTCTT CTTGACTTGC TAGGTCGTTG ACCTTGATTA	4020

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CCACTCCATC AATATCGTAA GGCAGATTTT CCCGTTCCCTG TCCTACTTCT TGGATAAAAT	4080
TCCAGATTTT ATCTATGTTT TCAGCCAAGA TTCGCTTAGG ATTGACCACA AAACCTAGTT	4140
GTTCTAGGTA CTTCAAACCC TTTTCTTGGC TATCACGAGT TGAAGGGCTG GCTTCTTGAT	4200
AGAGAAACGT TGCAAGATTA CGCTTGGCAA CTACTGCTGT ATCCAACCTGA CGCAGAGTTC	4260
CTGCTGCCGC ATTACGAGGA TTAGCAAATT CAGGCTCTCC ATTTTCTTGG CGCGCTTGGT	4320
TAAGTTGGTC AAAGGAAGCG CGTGGCATGT AACATTCCCC ACGAACTGTG ATATCTAGTT	4380
CTTCTGGCAA AGTCAAAGG ATGTCCTTAA CACGCTTGAG GTTTTCTGTG ATATTTTCAC	4440
CAATTGAACC ATCTCCACGT GTTACCCAG CAACCAAAAT CCCCTTTTCA TAAGTCAGCG	4500
AGATAGATAA GCCATCGATT TTCAGCTCAC AAATATAGGT CGGATGAGCC ACTTCCTTAC	4560
GAACACGCGC ATCAAAGCA TCTAGCTCCT CACATGAAAA AGCATCCTGC AAATAATAA	4620
GAGGATACTG ATGACTGTAT TTTTCAAAAC CATCTAAAAC CTTGCCACCA ACACGATGAG	4680
TCGACTGTC TGCTAGCACT TGCTCTGGAT AAGCAGTTTC TAACTCGACC AACTCACGGT	4740
AAAGGCGGTC ATACTCACTG TCTGAAACCG AGGGATTATC GCTGGTATAG TACTCAGTCG	4800
CATAGCGATT GAGCAAAGCG ACTAACTCAT TCATTCTTTT ATTCATAAGA CCATTTTACC	4860
ATAAAACAAG CCCTCCTCAC AAACGAGAAG GGCGGAAAAA AACTTAGTT TGAATTATT	4920
TTTGAACTC AAGCAACCTT ATATCAATTT TTCAAATGA GTTCGAACAT ATCCGAGAGC	4980
TAAGAAATAT AAGGCTACAA CTCCAAGTCC AATAATCAAG AAAGAATAAA GATGGACACT	5040
TGGCAAGACT GTCATAAATC CTTTGTCAAT AGGCATAAAT AGAATAGCTA AGGTAAAAAT	5100
TGTAATATTA AAAATCGTCA TAAACAATTC ACAAATAAA TTTCAGAAA AGGAAAGAAA	5160
GTGAATATTA AAAATCGTCA TAAACAATTC ACAAATAAA TTTCAGAAA AGGAAAGAAA	5220
AGTTGGAAGT GGTAAATCCCA TCATAAAAAC TCCGACACCT GTCAAAGCCA GTAAAAATCAA	5280
AAGATTATAA ATATTAGCTT TAATTTTACT AGCTAGAAGA GCCCCAATGA TGGAACCAAT	5340
AGCCCCATA GTTAAATAC TTGCATAGGC TCCTTCTGAC CCGTAAAGCT GATTGAAAAA	5400
GGGAAGTAGA AATTCAAAG CTGCAAAAAA GAAATTAACG CTGGAAGCTA CCAGCAAAAG	5460
GAAGAAAATT TCTTGCTGAT GCCAGATATA GTGTAACCCA TCCTTGATAT CTACAAAAAT	5520
ATCTCTCCCA GTAAAAGCCT TTTTCTCTTG AACTTTTGCT TCCTCTTTTG GAAGGAAAGC	5580
CACTAGAACA AAAGCAATGA AAAAAGTCAG CGAGTCTAGC AGTAGCGTCA TATGGAGACT	5640
TGCAAACGTG AAAACAAGGA AGGAAAGAAC AGGAGAGCTA ACACCTACAA CCTGCAAAAC	5700
CAGCTCTAAG CGAGAATTAT AGATCACAAAT CTCATCTTTC TCCACCACTT CAGTTATGAT	5760

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AGCTTTATTG	GCTGTGCGAG	AAAAGGCAAA	AGCAATAGCC	TGCACAATGT	TAGCAACAAT	5820
CAAAGCGCCA	ATCATCCAGC	TATCATTCCT	TATGAAAGAA	ATAGCCAGAC	AAAGAATCCC	5880
ACAAACAAGA	TCTGCCGTCA	TTAAATCTT	ACGACGAGAA	AAACGGTCTG	AAATAACTCC	5940
GCCAAAGGGA	TTGACGAGAA	TAGATGTGAC	GAGCTCAGAA	ATCTGATACA	TTCTTAAAC	6000
TGTCTGTCCT	ATAGTCCCCA	TAGAAGCCAA	CCAGACACTA	TTTCCATAAT	CATAGAGCAT	6060
ATTTCCCAT	TTATTGATAG	CCCCACGGCT	AATCAACTGC	ACTGCATAGC	GATTCATATT	6120
AAAGCTCCTC	TCAAATTTTG	AAACTATTGT	ATCAAAACCG	AAAGGAGCTT	TTTATTTT	6180
CCCTTATTTG	GGAAAATTAA	CTTTTGACAA	ATTTTTCGTA	GTGTTCTCTGA	TAATAGGCTA	6240
CTTGCTCTGG	AAGACCTAAC	ACATCAAAAA	TATGCATGGC	CTCTTGCACT	TGCTTACAGC	6300
CTTCTTTACA	CTGTCCTTTT	TGATATAAGG	CAAAACCTTT	TAAATAATGG	AAAACATTAC	6360
GCTCATAAAG	CTTAATACCT	TTGTCAATAA	TCTTCTCTGT	ATAAGCCTCA	AAATAGTTGG	6420
CATTATAAAA	AGAAGAATGC	TCTAAACAAT	GCTGGTAACA	ATTGAGGGCC	AAAATCAACA	6480
CTAATCTCTT	ATGGCGACTA	ATCTCTTGGT	AAAATTCCTC	CCTCTCCATA	ACTTCTCTAC	6540
CAATCCGAGT	GACATAGTCT	ACATCGTAGA	AACTATAGAG	GTTACCGAAA	AGAATCAACT	6600
CATACATGGT	CCATTCTTCT	GTTTTGAAGA	GATAATCTGC	TACCTTACCC	AAATCATCCT	6660
GCTTCATATC	ATAACTCGCA	TCTCTTTGAC	AAATCAGACC	TTGTAGCAAA	ATCCAGTTCA	6720
GCTCAAAATA	AAGGGGAGTC	GTCGAACTCT	TAGACTTTTC	AAGTTGTTCT	CTTTGAAGCT	6780
TTTGAAAACC	TGCAATATCG	TTTGAATAGT	AAAGTGGGAT	AATCTGTGCC	ATCATAGACA	6840
CATGTTTCATG	ATTATGAAAA	TTCCTTGCCT	TATCCATGAA	ATTTTCGATT	GTTACATGAA	6900
TGTTATCCAA	AATCTCAAAG	AAACGGGAGA	CTGCCAGGTC	AGACTCCCCA	AGCTCAAAGC	6960
GAGATAACTG	AGAGGTAGAG	CAGGATTCGC	CTGCTGCTTC	CTTTAAAGAA	TAATTTCCAC	7020
TTGTTTCGAAA	TTCACGAAAT	ACTTTTCCAA	GATGTTCCAT	CTTTACACCT	GCTCTGATAA	7080
TTCTTCCCAC	TCAAGCATAG	CTTCTTCCTG	ACGATGGCTG	ATTTTGTCCA	GCTCAGCCTG	7140
TAATTCCATG	AGTTTGTCGG	CATCGTTTGT	TTCCAACATT	TGTTTCAGAAA	TGGCTTGGCT	7200
TTGACTTTCT	AGCTCTTCAA	TTTCAGCTTC	TAGACTTTTCG	ATTTGTGCGA	TGAGTTTGGC	7260
AACTTCTTTT	TGACTTTCTT	TCTGGGCCTG	ATAGTCATTG	ACTGGACTTG	CTTCCTTTGC	7320
TTGATTGCTA	GTTGAAGCTT	CCTCAGTCTG	ACTCATTTCT	GCTGTTGCTT	TCTTCTCAAC	7380
ATAGTAGTCG	TAATCTCCAA	GGTAGAGAGT	TGAACCATT	TCAGACAATT	CCAAAACATG	7440
AGTTGCCACA	CGATTGATAA	AGTAACGATC	ATGACTGACA	AACAGCAAGG	TTCCATCAAA	7500
GTCAATCAAG	GCATTTTCTA	GCACTTCCTT	ACTATCAATA	TCCAAGTGGT	TGGTCGGCTC	7560



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ATCCAGAATC AAAAAGTTAT TGTTTTCCAT AGACAATTTA GCTAAAAGCA AACGAGCTTT	7620
TTCGCCACCA GATAGCATGC CGACTGATTT TTAAACATCA TCTCCTGAGA AAAGGAAGGC	7680
TCCAAGACGG TTGCGGATTT CAACTTCTGG TGTGAGTTTG AAATCATTCC AGAGTTCATC	7740
CAGCACCGTA TTA CTGCTGGTGC TCAGCTTGCT TTGGGTTTGG TCATAGTAAC CAACCTCAAC	7800
ATTAGCGCCA AAGCGCTTTT CTCCCTTGAT AAAAGGAATC TGGTCCACAA TAGACTTGAT	7860
AAAGGTTGAC TTGCCGATAC CATTTGGACC AACGATAGCG ACAGCATTCA TCTTACGAAG	7920
ATCTAGGTTA ATCGGTTGTG ACAAGACTTC CCCGTCATAG CCAACAGCTG CATTTTCAAC	7980
AGTCAAAACA ACATTGCCCG ACGTTTTTTC AGACTGGAAG GTCATGTTGG CTGATTTCTT	8040
GCCAGCTTCA GGCTTGTCCTA AACGTTCCTAT TTTTTCCTAGT TGTTCACGGC GAGATTGAGC	8100
ACGTTTAGTC GTTGAAGCAC GAACTAGATT GCGATTGACA AAGTCTTCCA GAGCAGCGAT	8160
TTCTTCTGT TGCTTTTCAT AGTTTTTTCG CTCAGTAACT AGCTTTTGCT CCTTCAATTC	8220
GACAAAACGA GAGTAATTCC CCACATAGCG ATCCAAGGAA TGCTTGGTCA AATCTAGCGT	8280
AATTGTCGCA ACCTTGTCCTA AGAAATAACG GTCGTGGCTG ACGATAATGA GGGCACCCT	8340
ATAGTTTACC AAGTAATTCT CTAGCCAGGC GATGGTTTCA ATATCCAAGT GGTTAGTTGG	8400
CTCGTCCAAG ACCAAGAGAT TGGGCTTTTC AAGGAGCATT TTGGCAAGTG CCAAACGAGT	8460
ATTTTGACCA CCAGAAAGCT CAGCAATTTT CATCTGCCAC ATAGACTCGT CAACTTGAA	8520
TCCATTCAAA ATCGCTCGAA TATCAGCTTC ATAGGTAAAG CCACCTGCTT GGCAGAAATT	8580
CTCAGATAAG CGGTCATAAT CTGACATCAG TTTATCCAAA TCCTCACCAG ACTTTTCACC	8640
CATCTCCAGC TCCATCTGAC GCAGTTGTCT CTCCGTCCGA CGCAAATCAT TAAAGACATG	8700
AAGCATTTCA TCGTAGATGG TATTTTCAGA CTCAAAACGG CTATCTTGGG CTAGGTAAGA	8760
CAGAGAAATA TCTTTTTTCT TATTGATTTT TCCGCTAGTT GGCTCCTCTT CTCCAATAA	8820
AATCTTCAAA AGAGTAGACT TACCTGCACC ATTTTCCCA ACAAGAGCAA TCCGATCTCG	8880
TTTATCAACC TGCAGGTTGA TATTATCGAA AAGAACCTCT CTGCAAAAAG AACGTTCAT	8940
TTTATTAGCT TGTAAAATAA TCATACAAGT AGTATAGCAT GTTCCCTAA GGCATTCAAG	9000
ATAATCGTAA GTCTTTTAGT ACAACTTTTA TAACATAAAA TAACTAAAT TATGTATATT	9060
TTATATTAGA TTA CTTCATCT ATCTTGTTGG ATTTTCTAAC CAGCTAATCT TGTTCAAAT	9120
AGTTATCGCA CAAGTCTATT ATTTAATTCT TTTCATCATT TACGTACGTA TAGCAGATTG	9180
AAATAAGATG AGAACAAATC GATTGGGAAA GTAAATTA TTTCTATAAA TGTTTTAGCA	9240
ATTGTTTCGT ACTATTTTAG ATTCAGTCTA CTATATACAA TATTTTCGGA ACATTCAACT	9300

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TTTAACTCT ATTTATTACT AGATTTCATA ATTAAAAAAC CTACTGACCA AGCTAGAAAG	9360
CTTGATACAA TAGGCTTTTT AAAGACTGAT TATTTAACAG CGTCTTTAAG AGCTTTACCA	9420
GCTTTGAATG CTGGTACTTT AGAAGCTGCA ATTGTCATTT CTTTACCAGT TTGTGGGTTG	9480
CGACCTTTAC GTTCTGCGCG CTCACGAACT TCAAAGTTAC CAAAACCGAT CAATTGAACT	9540
T	9541

## (2) INFORMATION FOR SEQ ID NO: 133:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3502 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 133:

TTGACTATCC TATCATGCTT TCTAAGGTCT ACTCAAGAAA ATCATTTTCA AGTTTTCACA	60
CCTTTCTCAA AAAAGTTAAA AAATTTTCTC AAAACGCTT GACTCTGACC TAAGGCGAAG	120
GGTATACTA TCATTGTAAG GAGGAAATCA TGTACCATAT AAAAGAAGCT GCGCAGCTTT	180
CAGGTGTCTC TGTCAAGACC CTGCATCACT ATGACAAGAT AGGACTCTTG GTCCCTTAA	240
AGTCGGA AAA CGGCTATCGA ACCTACAGTC AAGAGGATTT GGAACGCCTT CAGGTCATTC	300
TTTACTACAA ATATCTAGGC TTTTCTTTAG AGAAAATAGC AGAGCTGTTA AAGGAAGAAA	360
GGACAGATTT ATTGCCCCAT TTGACTAGGC AGTTGGACTA TCTAACTCGC GAAAGGCAAC	420
ATCTGGATAC CTTGATTTCC ACCTTGCAAA AAATATTCA AGACAAAAA GGAGAAAGAA	480
AAATGACCAT TGAGGAAAAA TTCACGGGAT TTAGCTATCA AGACAATCAA AAATACCACC	540
AAGAAGCGGT AGAGAAATAT GGTCAAGAAG TCATGGGACA AGCGCTCGAA CGCCAAAAAG	600
GTCACGAAGA CGAGGCTACG GCCGCCTTTA ACCAAGTCTT TCAAACCTTG GCACAAAATC	660
TTCAAGTTGG TTTACCTGCA ACAGCAACCG AAAACCAGGA GCAAGCAGCC AAGCTCTTGC	720
AAGCCATTCG CACTTATGGA TTTGACTGCT CTATTGAGGT ATTCGGTCAT ATCGGTAAAG	780
GTTACGTCTA CAACCCAGAG TTTAAGGAAA ACATTGACAA GTTTGGTTCT GAAACAGCCC	840
AGTACACGTC AGATGCCATT GCGGTTTACG TTCAGACAAA TGCAGAATAA ATAGGCTAGG	900
AATTCCTAG CCTATTTTTT ACTTCAAATC ATAAAGCCAG TCGTCACCGT TTTGTAGTA	960
AAAGAATTCA CTGAGATCTT CTTCTAGAAA CACACGAAGC ATATCAGACA TATCATCGGT	1020
TGCAAGTTT AGATGAGAAA GATTTTCAA GTCCCTCCAC CAAACTTTCC CTTCGTCTGA	1080
AGACTGGAGT TCACCAAGTAA AGTGTTCTGT CTTGTAAAA AGGACGACAT AACGATAATC	1140

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CTTGTCGTCA TACCAGTTTT TGATACCACA GAGTTGGGGT TTGGAAATGA TCAGACCAGT	1200
TTCTTCTTTC ACTTCACGAA TGACAGCATC GACAAAGGAT TCGCCACGTT CAACATGACC	1260
ACCAGGAAAA GTAATGCCAG ACCAGTCGGG ATTAAGTCGG TCTTGGACCA GGACCTTATC	1320
TCCGTTTTTA ATCATACACA TGTTAACAAA TTCGACTGCC TCTCTTCTGT TCATTCTTCA	1380
CAACCTTTAA TCTTTAATCA TAATGCAGAC TTCCCGCCAC CCAGCCGGTA CAGAGGGCAG	1440
AAGTGATGTT AAAGCCACCC GTGTGGGCAT TGATATCCAT AACTTCGCCT GCAAAGTGGA	1500
GGCCAGGTAC CAGCTTACTT TCAAGGGTTT TAGGATTGAT TTCCTTGAGA CTGACTCCAC	1560
CCTTGGTAAC AAAGGACTTT GCAAGGGACA TTTTTCAGT TACAGGAATT TTAAGTTCTT	1620
TAATGGACTG GACAAGTTGT TCTCGTTCCT TTTCAAGTCAG TTGTTTGACT TTTTCAGGAT	1680
ATCCTTGATC AAAAAATTCG GCCAAGCGTT CTGGTAACAA GGTTTTTAAA GCGTTTTTCA	1740
AGGATTTTTC CCGATTTTCT TCTAGAAATG TAACCAAGTC CTTCTCAGAA AGTTGAGGCA	1800
AAACATCGAG TGAGAGAAAC TCCCCACCTT TGACAAAGCT AGACATGCGT AGGGCAGCAG	1860
GACCTGACAA ACCAAAGTGG GTAAAGAGTA AATCATGAGT GATGACATGC TTACCATAAC	1920
TTAGGGTCAC ATCGTCCAGA GAAATACCTT GTAAGGCTTT ATGTGGAAAA TCTGTTAATA	1980
AAGGACTTTC AGCAGCCTCA AGATCGGTGA TGGTATGCTT AAAATGGCGA GCAATCTCGT	2040
GACCAAAACC AGTCGAACCA GTCGAAGGAT AAGACTTACC ACCTGTTGTG ACAATGAGTT	2100
TCTCACAAGT GAAGGTTTGA TCCGCTGACT TAAGGACAAA CTGGTCATCT ACTTTTTTAA	2160
CAGAAACGAT TTCTATTGTA GTAGCAACTT GACCACCTAG TTCGGTGATT TTCTTTTCCA	2220
AAGCTTCGAT AATAGTCCGA GACTTGTCAC TGGCTGGAAA GACGCGTCCG TGGTCTTCGA	2280
CCTTAAGTTT AACACCATT TCTGTAAAAA AGTTGATGAT GTCATGATTA TCGAACTGGG	2340
AGAAAACACT GTAAAGAAAAG CGTCCGTTTC CAGGAATTCC AGCTAGCAGG TTGTCTAAGC	2400
TACCATTGTT GGTACATTG CAACGTCCCC CACCAGTCCC AGCTAATTTT TTTCCAAGTT	2460
TCCGATTTTT TTCGATGAGG AGGGTTTCT GTCCATAAAA GCTACTGGAA ATCGTAGCCA	2520
TCATACCAGC AGGTCCCCCA CCGATGACAA TAGTATCAA ATGTTTCATA GCTCTATTGT	2580
ACCACAAAAA AACAAGAGAT GATGGTCACC TCTGTCAAG AATGCAATTA ATCAATTTCA	2640
TAGCCCATCA GCAAACCGCC CTCTTCTGCA TAGAACTGC AGAGACCAGA GGTGGGTAGA	2700
ATTTTAATAT CCGCTTGTTG GAAGGTTTCA CGGATTGCT CTGAGAGCTG TTGACAACAT	2760
TTTTCGTTAT TGCGTTGGC CATGACAATA CGGCCACCAG CATATCCAGC TTTTACTAAC	2820
TCATCATAGG CAGCTTGAAC TGATTTCTTT GATCCCTTG CTTTTGTAG CAATTCGAGA	2880

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GTCCCAGTTT CACTAGCTTT TCCGACCATA CGAATGTTGA GAAGGCCAAC GACCGTACCG	2940
ATAAGCTTGC TCAAACGGCC GTTCTTCACC AAGTTATCGA CTTTGGCTAG GACAAAGAGC	3000
AACCTTAGTTT TTTCTTGATA GCGGGTGATA GCTTCAACCA CTTCTTCAA AGACAAGCCC	3060
TGGTCAATCA AGTCATTCAA TTTTCTACG AGTAGGTCAA CTTCAACCACC AGCAGATAAA	3120
CTATCAATCA CATGAATCTT AGTGTCAAGG TGGTCTTCCA GATAAATATT CTTTGCTAGT	3180
TGAGCACTAT TGTGACTGCC AGAAAGGGTA CCTGTGATGG TTACTAGGAA AATGTTTTTG	3240
GCACCTTCAA ATGCTCGCAA ATAGTCATCT GGGCTTGGAC AAGCCGATTT TGAAGCTTCT	3300
GCAGTTGCAT ACATGGTTTC CATCATTTGG TCAATATCGA GACTGGCGTC ATCAACAAAG	3360
ACCTGATCAG CTACTTGAAT GGTAAAGGGG ACACTTACAA AGGTGTGTGT AATAGCTGGT	3420
GTGGCAGTT GACGATAATC ACAACCAGAG TCAGCAATAA TCTTCCAAGT CATAGAAATT	3480
CTCCATCTTT GTCAGGAACG AT	3502

(2) INFORMATION FOR SEQ ID NO: 134:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12665 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 134:

CGATTGATTT TTTTAAAGCG TTCGATAGAG AATGAGAAAC GAATCCTTAG CAATGGCGGG	60
AAAGAATTTG GAGTTGAGAA TACAAAACGA TTAACATATGG CTCATATTGT TTTTATCTC	120
TCTTGCTTGG TTGAGGCAAT GGTGCACAAG ACAATTTTGG ATGGCATGGG CATGGTTGGT	180
TTAGTCTTGC TTATTTTTTC TATGCTGATG TTGATGTTGG TGATTCACCT GTTGGGAGAT	240
ATTTGGACAG TGAAGCTTAT GCTTGTCAAT AATCACAAAT ATGTAGATCA TATCTTGTTC	300
AGGACAGTAA AACACCCTAA TTAATTTTTC AATATTCTTC CTGAGTTGAT TGGCTTGACC	360
TTGTTGAGTC ATGCTTATGT GACTTTTGTT TTAGTTTTTC CAGTTTATGC AGTTATTTTG	420
TATCGACGAA TAGCTGAAGA GGAAGGCTA TTACATGAAG TTATAATCCC AAATGGAAGC	480
ATAAAGAGAT AAATACAAAA TTCGATTAT ATACAGTTCA TATTGAAGTG ATATAGTAAG	540
GTAAAGAAA AAATATAGAA GGAAATAAAC ATGTTTGCAT CAAAAGCGA AAGAAAAGTA	600
CATTATTCAA TTCGTAAATT TAGTGTGGGA GTAGCTAGTG TAGTTGTTGC CAGTCTTGT	660
ATGGGAAGTG TGGTTCATGC GACAGAGAAC GAGGGAGCTA CCCAAGTACC CACTTCTTCT	720
AATAGGGCAA ATGAAAGTCA GGCAGAACA GGAGAACAAC CTAAAAAAT CGATTTCAGAA	780

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CGAGATAAGG CAAGGAAAGA GGTCTGAGGAA TATGTAAAAA AAATAGTGGG TGAGAGCTAT	840
GCAAAATCAA CTAAAAAGCG ACATACAATT ACTGTAGCTC TAGTTAACGA GTTGAACAAC	900
ATTAAGAACG AGTATTTGAA TAAAATAGTT GAATCAACCT CAGAAAGCCA ACTACAGATA	960
CTGATGATGG AGAGTCGATC AAAAGTAGAT GAAGCTGTGT CTAAGTTTGA AAAGGACTCA	1020
TCTTCTTCGT CAAGTTCAGA CTCTTCCACT AAACCGGAAG CTTTCAGATAC AGCGAAGCCA	1080
AACAAGCCGA CAGAACCAGG AGAAAAGGTA GCAGAAGCTA AGAAGAAGGT TGAAGAAGCT	1140
GAGAAAAAAG CCAAGGATCA AAAAGAAGAA GATCGTCGTA ACTACCCAAC CATTACTION	1200
AAAACGCTTG AACTTGAAAT TGCTGAGTCC GATGTGGAAG TTAATAAAGC GGAGCTTGAA	1260
CTAGTAAAAG TGAAAGCTAA CGAACCTCGA GACGAGCAAA AAATTAAGCA AGCAGAAGCG	1320
GAAGTTGAGA GTAAACAAGC TGAGGCTACA AGGTTAAAAA AAATCAAGAC AGATCGTGAA	1380
GAAGCAGAAG AAGAAGCTAA ACGAAGAGCA GATGCTAAAG AGCAAGGTAA ACCAAAGGGG	1440
CGGGCAAAAC GAGGAGTTCC TGGAGAGCTA GCAACACCTG ATAAAAAGA AAATGATGCG	1500
AAGTCTTCAG ATTCTAGCGT AGGTGAAGAA ACTCTTCCAA GCCCATCCCT GAAACCAGAA	1560
AAAAAGGTAG CAGAAGCTGA GAAGAAGGTT GAAGAAGCTA AGAAAAAGC CGAGGATCAA	1620
AAAGAAGAAG ATCGCCGTAA CTACCCAACC AATACTTACA AAACGCTTGA ACTTGAAATT	1680
GCTGAGTCCG ATGTGGAAGT TAAAAAGCG GAGCTTGAAC TAGTAAAGA GGAAGCTAAG	1740
GAACCTCGAA ACGAGGAAAA AGTTAAGCAA GCAAAAGCGG AAGTTGAGAG TAAAAAGCT	1800
GAGGCTACAA GGTTAGAAAA AATCAAGACA GATCGTAAAA AAGCAGAAGA AGAAGCTAAA	1860
CGAAAAGCAG CAGAAGAAGA TAAAGTTAAA GAAAAACCAG CTGAACAACC ACAACCAGCG	1920
CCGGCTCCAA AAGCAGAAAA ACCAGCTCCA GCTCCAAAAC CAGAGAATCC AGCTGAACAA	1980
CCAAAAGCAG AAAAACCAGC TGATCAACAA GCTGAAGAAG ACTATGCTCG TAGATCAGAA	2040
GAAGAATATA ATCGCTTGAC TCAACAGCAA CCGCCAAAAA CTGAAAAACC AGCACAACCA	2100
TCTACTCCAA AAACAGGCTG GAAACAAGAA AACGGTATGT GGTACTIONCTA CAATACTGAT	2160
GGTTCAATGG CGACAGGATG GCTCCAAAAC AATGGCTCAT GGTACTIONCT CAACAGCAAT	2220
GGCGCTATGG CGACAGGATG GCTCCAAAAC AATGGTTCAT GGTACTIONCT AAACGCTAAT	2280
GGTTCAATGG CAACAGGATG GCTCCAAAAC AATGGTTCAT GGTACTIONCT AAACGCTAAT	2340
GGTTCAATGG CGACAGGATG GCTCCAATAC AATGGCTCAT GGTACTIONCT AAACGCTAAT	2400
GGTTCAATGG CGACAGGATG GCTCCAATAC AATGGCTCAT GGTACTIONCT AAACGCTAAT	2460
GGTGATATGG CGACAGGTTG GGTGAAAGAT GGAGATACCT GGTACTIONCT TGAAGCATCA	2520

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GGTGCTATGA	AAGCAAGCCA	ATGGTTCAAA	GTATCAGATA	AATGGTACTA	TGTCAATGGC	2580
TCAGGTGCCC	TTGCAGTCAA	CACAACGTGA	GATGGCTATG	GAGTCAATGC	CAATGGTGAA	2640
TGGGTAAACT	AAACCTAATA	TAAC TAGTTA	ATACTGACTT	CCTGTAAGAA	CTCTTTAAAG	2700
TATTCCCTAC	AAATACCATA	TCCTTTCAGT	AGATAATATA	CCCTTG TAGG	AAGTTTAGAT	2760
TAAAAAATAA	CTCTGTAATC	TCTAGCCGGA	TTTATAGCGC	TAGAGACTAC	GGAGTTT TTT	2820
TGATGAGGAA	AGAATGGCGG	CATTCAAGAG	GCTCTTTAAG	AGAGTTACGG	GTTT TAAACT	2880
ATTAAGCCTT	CTCCAATTGC	AAGAGGGTTT	CAATCTCTGC	CAGGGTGCTG	GCTTGCGAAA	2940
TGGCTCCACG	GAGTTTGCA	GCGCCAGATG	TTCCACGGAG	ATAGTGAGGA	GCGAGACCGC	3000
GGAATTCACG	AACTGCGACG	TTTCTCTCCTT	TGAGGTTAAT	CAATCGTTTC	AAGTGTTCTGT	3060
AGGCGATCTT	CATCTGTCT	TCAAAGGTCA	AATCAGGTAG	GATTTCTCCT	GTTTCAAAGT	3120
AATGGTTGAT	TTGGTTGAAG	AGGTAAGGAT	TTCCCATGGC	AGCTCGGCCA	ATCATGACTG	3180
CGTCAGCACC	AACTTCTTCG	ATGCGTTGCT	TGGCTTCTTG	GACAGTACGG	ATATCACCGT	3240
TGGCGATGAA	TGGAATCTTG	GTTAGAGCTT	GGCAACCTT	GTAAAGGGTC	TCAAGGTCTG	3300
CGTGCCAGT	ATACATTTGT	TCACGGGTAC	GGCCATGCAT	GGCGAGGGCA	GAAACACCTG	3360
CAGCTTCAGC	AGCGAGAGCA	TTTTCTACTG	CAAGAGATGG	GTCCGCCCAG	CCGGTACGCA	3420
TTTTGACAGT	AAGTGGGATA	TCAAGGACAG	ACTGGACCTT	GTTGATGATG	GAGTAAATCT	3480
TGTCTGGATC	CTTGAGCCAC	ATAGCACCAG	CTTCGTTCTT	CACGATTTTG	TTGACAGGGC	3540
AGCCCATGTT	GATATCGACG	ATATCGGTCT	TGGTGT TTTT	TTGGATGAAT	TCTGCTGCGC	3600
GTGCTAGGCT	GTCTTCATCG	CTACCAAAAA	GTTGGATAGA	GACAGGGTTT	TCGCCCTCAT	3660
CGATATGAAG	CATGTGCAGG	GTTTTTTCGT	TGTTGTATTG	GATTCCCTTG	TCAGAGACCA	3720
TTTCCATTAC	AACGAGTCCA	GCTCCGAGCT	CCTTTGCGAT	AGTACGAAAG	GCTGAGTTGG	3780
TCACGCCAGC	CATAGGCGCT	AAAACGGTAC	GATTGGGAAT	CTCAATATTG	CCAATCATAA	3840
AAGGTGTATT	AAGATTTGTC	ACGAATGAGT	TCCTCCAGGT	CCTTTTCATC	AAAGTTGTAA	3900
GTAGTTTGGC	AGAATTGACA	AGTGATTCTT	GCCCCGTGGT	CTTCCTCTTT	CATTTCTCTGT	3960
AAGTCTGAGC	TTGGAAGGCT	GGCAAGAGCG	TTCATAAAGC	GTTCATGGCT	ACAGTCACAT	4020
TGGAACCGGA	TTTCTTCTTC	AGAAAGACGC	TTGTAGGCTT	CGTCCCCGTA	GATAGCCTTG	4080
AGGAGGGCTT	CGATATGGTC	GTCGCTTTCG	AGAAGAGTAG	AGATAGCTGG	CATTTCTTGG	4140
ATGCGTTTTT	CAAAGCGAGC	AATCTCTTCT	TTCTTGCGTC	CTGGCAAGAC	TTGAACTAGG	4200
AAACCACCTG	CAACCTTGAC	CTTGTCTTCC	TCGTCCAAAA	GGACATTGAG	GCCGACCGCT	4260
GAAGGCGTTT	GTTGGCTTTC	AGTAAGGTAA	AAGGCAAGGT	CTTCACCGAT	TTCTCCAGAG	4320

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ATGAGGGGAG TTATAGAGTT GTAAGGATTT CCAGTACCGT AGTCTGTGAT AACGAGGAAT	4380
TGACCATTTT CAACAAAAGG TCCGACTAGG ACTTCACCAG TCGCAGTCTT TTTGATGTCA	4440
ACACCAGGAT TTTGAACATA GCCTTTGACG TTCCCCTTGG TATCAGCGAC GGTGATAATA	4500
GCACCTAGAG AGCTAGATCC CAACACCTTA ACTGTAAGTT TGGTATTTCC TTTTTCATTG	4560
GCTGCGAGAA TCTGGCTAGC GATAAGAGTT CGACCAAGCG CTACAGTTGA GCTAGCTTGG	4620
GTTTGATGTT TTTCTTGAGC AGTGCGGACG GTTTCAGTGC TATCAAGGAC AAAAGCACGA	4680
AAGGcTCCGC TTTCTGATAT AGTTTTAATA ATTTTATCCA TAGCTACTAT TTTAGCATAA	4740
AAATGCCCAA AGGGGGAGCC GTGTGTTTAC TGATTTTCAG GATAATGGAC CAGGAAATCA	4800
GCATGAAAAAT AAAAAGAGAA ACAGATTATT TTAGCATTTG TCAGATTTAT GCTATGCTTA	4860
AGGTAGAAAA TGAAAGGGAT AACAAATGTA TTAGGAGAT TTGATGGAGA AAGCCGAGTG	4920
TGGTCAATTT TCAATACTTT CCTTCTATT ACAAGAGTCT CAGACGACCG TCAAGGCTGT	4980
AATGGAAGAA ACAGGATTTT CAAAAGCAAC CCTAACCAA TATGTCACCC TGCTCAATGA	5040
CAAGGCTTTG GATAGTGGCT TAGAGCTGGC TATTCACCTA GAAGATGAAA ATCTGCGTCT	5100
GTCTATCGGT GCAGCTACCA AGGGGAGAGA TATTCGGAGC TTGTTTTTGG AGAGTGCTGT	5160
TAAATACCAG ATTTTGTTT ATCTTCTCTA CCACCAACAG TTTTTCAGCC ATCAGCTGGC	5220
TCAAGAATTG GTGATTAGCG AGGCTACGCT TGGTCGTCAC TTGGCTGGTT TAAATCAGAT	5280
TTTGTGAGAA TTTGATTAT CCATCCAAAA TGGCCGTTGG CGAGGTCCAG AGCATCAGAT	5340
TCACTATTTT TATTTCTGTC TTTTCCGAAA GGTCTGGTCG AGTCAGGAAT GGAAGGTCA	5400
CATGCAGAAA CCAGAGAGAA AACAGGAGAT TGCCAATTTA GAGGAAATCT GCGGTGCAAG	5460
TTTGTCTGCG GGGCAGAAAT TGGACTTGGT TCTCTGGGCT CACATCAGTC AACACGTCT	5520
TCGGGTCAAT GCTTGTGAGT TTCAAGTCAT AGAAGAGAAA ATGCGAGGGT ATTTTGACAA	5580
TATCTTTTAT CTTCGTTTGC TGAGAAAGGT TCCGTCCTTT TTTGCTGGGC AACATATTCC	5640
ACTAGGAGTT GAGGATGGTG AGATGATGAT ATTCTTCTCT TTTCTCCTAT CTCATCGCAT	5700
TCTTCCTCTT CATACTATGG AGTATATTCT TGGTTTGGGA GGGCAGTTGG CAGATTTACT	5760
GACGCAATTG ATTCAAGAAA TGAAGAAGGA GGAACATATG GGGGATTATA CAGAGGACCA	5820
TGTCACCTAT GAACTCAGTC AGCTTTGTGC TCAAGTCTAT CTCTATAAGG GCTATATTTT	5880
ACAGGATCGC TACAAGTACC AGTTAGAGAA TCGTCATCCA TATTTACTGA TGAACATGA	5940
TTTTAAAGAG ACAGCAGAGG AGATTTTCA TGCTCTACCT GCTTTTCAAC AGGGGACAGA	6000
TTTAGATAAG AAGATTCTCT GGGAATGGCT CCAGTTAATC GAATATATGG CTGAAAACGG	6060

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TGGCCAGCAT	ATGCGGATTG	GTCTGGATTT	GACATCTGGT	TTTCTTGTCT	TTTCAAGGAT	6120
GGCAGCCATT	TTGAAACGGT	ATTTGGAATA	CAATCGTTTT	ATTACCATTG	AAGCTTATGA	6180
CCCTAGTCGG	CATTATGATT	TGCTGGTTAC	CAATAACCCG	ATTCATAAGA	AGGAACAGAC	6240
ACCAGTCTAT	TATTTAAAAA	ATGACTTGGA	TATGGAGGAT	TTGGTAGCGA	TCGCCAGTT	6300
ATTATTCACT	TAAAAGGCTT	GGTTAATCCA	GGTCTTTTTT	GTGAAATTCA	CACAATCTCC	6360
TCACATTTTT	TTAAAAATTA	AAAAAAGTTG	ATAACAAGA	AAGCGCTTTA	TTTTGTATAC	6420
TAGTAAGTGT	AAAGAGGAAA	CACCTCAAGA	TCTTTATCAG	GAGGACAGTA	CATGTCACAA	6480
GAAAAATACA	TCATGGCCAT	TGACCAGGGA	ACTACAAGTT	CTCGTGCCAT	CATTTTCAAC	6540
AAAAAAGGGG	AAAAGGTTAG	CTCGAGTCAA	AAAGAGTTTA	CCCAGATTTT	CCCTCAGGCA	6600
GGTTGGGTTG	AGCACAAATGC	CAATGAAATT	TGGAATCTG	TTCAGTCAGT	TATTGCGGGT	6660
GCTTTCATCG	AAAGTGGTGT	CAAGCCAAAT	CAAATCGAGG	CAATCGGGAT	TACCAACCAA	6720
CGTGAAACAA	CGGTGTCTG	GGATAAGAAA	ACAGGACTTC	CTATCTACAA	TGCTATCGTT	6780
TGGCAGTCAC	GCCAGACAGC	ACCTTTGGCT	GAGCAACTAA	AAAGCCAAGG	TTATGTGGAA	6840
AAATTCCATG	AAAAGACTGG	TTTGATTATT	GATGCTTACT	TCTCTGCTAC	CAAGGTCGT	6900
TGGATTTTGG	ATCATGTAGA	AGGTGCTCAA	GAGCGAGCAG	AAAAAGGGGA	ATTGCTCTTT	6960
GGTACTATCG	ATACTTGGTT	GGTTTGGA	TTGACTGACG	GTGCGGCTCA	CGTGACTGAC	7020
TACTCAAATG	CAGCTCGTAC	CATGCTTTAT	AACATTAAAG	AACTCAAATG	GGATGATGAG	7080
ATTTTGGA	TCCTTAACAT	TCCGAAGCT	ATACTCCAG	AAGTTCGTTC	TAACCCGAA	7140
ATCTACGGCA	AGACAGCTCC	ATTCCATTTT	TACGGTGGAG	AGGTGCCAAT	CTCAGGTATG	7200
GCTGGGGACC	AACAAGCAGC	CCTCTTTGGA	CAGTTGGCTT	TTGAGCCAGG	TATGGTTAAG	7260
AATACTTATG	GAACAGGCTC	TTTCATCATC	ATGAATACTG	GGGAAGAGAT	GCAGTTGTCT	7320
GAAAAACAACC	TCTTGACAAC	CATTGGTTAC	GGAATCAACG	GTAAGGTTTA	TTATGCCTTG	7380
GAAGGTTCTA	TCTTCATCGC	AGGAAGTGCT	ATTCAAGTGGC	TTCGTGACGG	TCTTCGCATG	7440
GTTGAAAATT	CACCAGAATC	TGAAAAATAC	GCTCGTGATT	CTCACAACAA	CGATGAAGTT	7500
TATGTCGTTC	CAGCCTTTAC	AGGTCTAGGC	GCTCCATACT	GGAACCAAAA	TGCTCGTGGT	7560
TCCGTCTTTG	GTTTGACTCG	TGGAACAAGC	AAAGAAGACT	TTATCAAGGC	GACTTTGCAA	7620
TCTATTGCTT	ATCAAGTGCG	TGATATCATC	GACACCATGC	AAGTGGATAC	TCAGACCGCC	7680
ATTCAAGTAC	TGAAGGTGGA	TGGTGGTGCA	GCCATGAACA	ACTTCCTCAT	GCAGTTCCAG	7740
GCGGATATTT	TAGGCATTGA	CATTGCACGT	GCTAAAAACC	TGGAAACAAC	AGCTCTAGGA	7800
GCGGCCTTCC	TAGCAGGTTT	GTCAGTAGGG	TACTGGAAAG	ACTTGGACGA	GTTGAAACTC	7860



TTGAACGAGA CAGGAGAACT CTTTGAGCCA TCTATGAACG AATCTCGCAA GGAACAAC TC	7920
TACAAGGGCT GGAAGAAGGC TGTGAAAGCA ACTCAAGTCT TTGCGGAAGT AGACGACTAA	7980
TACTGGCAGA ATAAAGCGAT TTATTTAGAA AGTGTGTAAT TATGGAATTT TCAAAGAAAA	8040
CACGTGAATT GTCAATTAAA AAAATGCAGG AACGTACCCT GGACCTCTTG ATTATCGGTG	8100
GAGGAATCAC AGGAGCTGGT GTAGCCTTGC AGGCGGCAGC TAGCGGTCTT GAGACTGGTT	8160
TGATTGAAAT GCAAGACTTT GCAGAAGGAA CATCTAGTCG TTCAACAAAA TTGGTTCACG	8220
GAGGACTTCG TTACCTCAAA CAATTTGACG TAGAAGTGGT CTCAGATACG GTTTCTGAAC	8280
GTGCAGTGGT TCAACAAATC GCTCCACACA TTCCAAAATC AGATCCAATG CTCTTACCAG	8340
TTTACGATGA AGATGGAGCA ACCTTTAGCC TCTTCCGTCT TAAAGTAGCC ATGGACTTGT	8400
ACGACCTCTT GGCAGGTGTT AGCAACACAC CAGCTGCGAA CAAGGTTTGT AGCAAGGATC	8460
AAGTCTTGGA ACGCCAGCCA AACTTGAAGA AGGAAGGCTT GGTAGGAGGT GGAGTGTATC	8520
TTGACTTCCG TAACAACGAT GCGCGTCTCG TGATTGAAAA CATCAAACGT GCCAACCAAG	8580
ACGGTGCCCT CATTGCCAAC CACGTGAAGG CAGAAGGCTT CCTCTTTGAC GAAAGTGGCA	8640
AGATTACAGG TGTGTAGCT CGTGATCTCT TGACAGACCA AGTGTTTGAA ATCAAGGCCC	8700
GTCTGGTTAT TAATACAACA GGTCTTGGA GTGATAAAGT ACGTAATTTG TCTAATAAGG	8760
GAACGCAATT CTCACAAATG CGCCCAACTA AGGGAGTTCA CTTGGTAGTA GATTCAAGCA	8820
AAATCAAGGT TTCACAGCCA GTTACTTCG ACACAGGTTT GGGTGACGGT CGTATGGTCT	8880
TTGTTCTCCC ACGTGAAGAAC AAGACTTACT TTGGTACAAC TGATACAGAC TACACAGGTG	8940
ATTTGAGCA TCCAAAAGTA ACTCAAGAAG ATGTAGATTA TCTACTTGGC ATGTGCAACA	9000
ACCGCTTCCC AGAATCCAAC ATCACCATTG ATGATATCGA AAGCAGCTGG GCAGGTCTTC	9060
GTCCATTGAT TGCAGGGAAC AGTGCCTCTG ACTATAATGG TGGAAATAAC GGTACCATCA	9120
GTGATGAAAG CTTTGACAAC TTGATTGCGA CTGTTGAATC TTATCTCTCC AAAGAAAAAA	9180
CACGTGAAGA TGTGTAGTCT GCTGTGAGCA AGCTTGAAAG TAGCACATCT GAGAAACATT	9240
TGGATCCATC TGCAGTTTCT CGTGGGTCTA GCTTGGACCG TGATGACAAT GGTCTCTTGA	9300
CTCTTGCTGG TGGTAAAATC ACAGACTACC GTAAGATGGC TGAAGGAGCT ATGGAGCGCG	9360
TGGTTGACAT CCTCAAAGCA GAATTTGACC GTAGCTTTAA ATTGATCAAT TCTAAAAC TT	9420
ACCTGTTC AGGTGGAGAA TTGAACCCAG CAAATGTGGA TTCAGAAATC GAAGCCTTTG	9480
CGCAACTTGG AGTATCACGT GGTTCGATA GCAAGGAAGC TCACTATCTG GCAAATCTTT	9540
ACGGTTCAAA TGCACCGAAA GTCTTTGCAC TTGCTCACAG CTTGGAACAA GCGCCAGGAC	9600

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TCAGCTTGGC	AGATACTTTG	TCCCTTCACT	ATGCAATGCG	CAATGAGTTG	ACTCTTAGCC	9660
CAGTTGACTT	CCTTCTTCGT	CGTACCAATC	ACATGCTCTT	TATGCGTGAT	AGCTTGATA	9720
GTATCGTTGA	GCCAATTTTG	GATGAAATGG	GACGATTCTA	TGACTGGACA	GAAGAAGAAA	9780
AAGCAACTTA	CCGTGCTGAT	GTCGAAGCAG	CTCTCGCTAA	CAACGATTTA	GCAGAATTAA	9840
AAAATTAAGA	AAAAATAAAA	GAGGTGGAGG	GCAGCATTCC	TTGTGCCCCG	TCCCTTCTTT	9900
TTAATGGAGA	CAGAAAGATG	ATGAATGAAT	TATTTGGAGA	ATTTCTAGGG	ACTTTAATCC	9960
TGATTCTTCT	AGGAAATGGT	GTTGTTGCAG	GTGTGGTTCT	TCCTAAAACC	AAGAGCAATA	10020
GCTCAGGTTG	GATTGTGATT	ACTATGGGTT	GGGGGATGTC	AGTTGCGGTT	GCAGTCTTTG	10080
TATCTGGCAA	GCTCAGTCCA	GCTTATTTAA	ACCCAGCTGT	GACCATCGGT	GTGGCCTTAA	10140
AAGGTGGTTT	GCCTTGGGCT	TCCGTTTTGC	CTTATATCTT	AGCCCAGTTC	GCAGGGGCCA	10200
TGCTGGGTCA	GATTTTGGTT	TGGTTGCAAT	TCAAACCTCA	CTATGAGGCA	GAAGAAAATG	10260
CAGGCAATAT	CCTGGCAACC	TTCAGTACTG	GACCAGCCAT	CAAGGATACT	GTATCAAACCT	10320
TGATTAGCGA	AATCCTTGGA	ACTTTTGTTT	TGGTGTGAC	AATCTTTGCT	TTGGGTCTTT	10380
ACGACTTTCA	GGCAGGTATC	GGAACCTTTG	CAGTGGGAAC	TTTGATTGTC	GGTATCGGTC	10440
TATCACTAGG	TGGGACAACA	GGTTATGCCT	TGAACCCAGC	TCGTGACCTT	GGACCTCGTA	10500
TCATGCACAG	CATCTTGCCA	ATTCCAAACA	AGGGAGACGG	AGACTGGTCT	TACGCTTGGA	10560
TTCCTGTGTG	AGGCCCTGTT	ATCGGAGCAG	CCTTGGCAGT	GCTTGTATTC	TCACTTTTCT	10620
AGTTTATACT	CTTCGAAAAT	CAAATTCAAA	CCACGTCAGC	GTGCGCTTAC	CGTACTCAAG	10680
TACAGCTTGC	GGCTAGCTTC	CTAGTTTGCT	CTTTGATTTT	CATTGAGTAT	TAGAAAACAA	10740
TTATGTTGAT	AGAGCTTGGG	CAAGAGCCCA	ATTTAGAGCA	AAAATGAAGT	AAATCTTCTC	10800
ATAATAAAAC	GCATCATATC	AAGCACGAAA	ATTCCACGAG	GTCAACTACA	GTCAGAAAGC	10860
TGAACAACAA	GCCAAAACGC	CCAAAAAAGG	CGGCAAAAAG	CAAGCACCTG	CAAGCAACGT	10920
GCCGAAATGG	TCAAATCCTG	ATTATGTCAA	CGAATTAGAC	CCAAAAATCG	TTGATATGCT	10980
AGTAGAATTT	CACAAGTCAC	AAGGCACTTT	GGAAACTCCC	GAGGCGCAAG	CAGAAATCGC	11040
CCAAAAACGT	GAAGAAATCG	AGCAAAGGAG	AGCTGAGCTT	GAGGGTAAAA	AACAAGAGCT	11100
TTTGAACCGC	TTGAACAAAT	AGAGTTTCGC	AAGTATTATG	CTTACAAATT	ACTTGAGCAA	11160
TTAACTAAAA	TATAAACCCCT	GCCTTTATAT	CTAGGCAGGG	TTTATATTTT	AGAAATTCAC	11220
GTAGGTTGTT	ACGGTTTTTA	CATACCCAGT	ATAGTTTGAG	TTTCTATAGT	ATTCAGTGAT	11280
AAACTTCCAT	TTTCTTTGAG	CAACATGGAT	ATAAGTACTT	GTTATGTAGT	ATGGATATGG	11340
GCTTTGTGAA	TCCAAGTAAG	ACTGATAAGC	TTGTATACCA	AAATATGCTC	CACCAATTAT	11400

915

TGCACCCCAT	GGACCCCCCA	ATAAAGCACC	TATCCTACCA	ATCATATAAC	TGATTCCAGC	11460
ACCAGTCATG	AAGTTAGCGA	ATGTGTTAGC	TTGTTTATTC	CCATGTATTG	TGTTGACGTA	11520
ATTCCAAACA	TTAGGATCGT	ATGATCTAAA	AGATATATTT	AGGTCGATTT	CATTCTTTTG	11580
ATAAGCCATA	TAAAATGCCC	CATTGATATA	GACGCCGTCA	GCACGTCGTT	CAATAGTGTC	11640
TACACTTCCA	TCTGGATTGA	CAACCTCAAG	AACTTCATCG	CTTAAAATAT	TTACTTGCGT	11700
ATCTCCGAAC	CGCACTGATG	AGCCATTCTC	AACTGAGCC	TCACCAGATA	CAACTTTAGA	11760
GTTTGCCGAT	AAGCTATCAT	CAGCAAAAAC	AAACAAGCGA	CGGGGAAATG	CTAGACATAC	11820
AGAAAACAGA	CATAACTAGC	AAACACATGC	ATTTAAACAT	CTTAGACATA	ACGGAAACTC	11880
CTTTGTATTT	TTGATTTTTT	TCAACTTTTA	TTATACAATA	AAACCAAATA	AAAAGAAAGC	11940
GGTAACAATA	TGCTTAATGC	GAAAATTTTT	TATATATTTT	TATGTTTGAT	CGTTATCGAA	12000
ACTACAGGCT	TGTTGTTGTT	GAAAAGAGGT	CTCGAAATGG	GTTATTTAGA	CACAGAAGCT	12060
ATTATCCTCG	CAGTTTTTTC	ATTTGCTTTT	TACAACCTAT	GTTCAATTCGC	TTGGGTCTGC	12120
TCTACAATAA	AAAACAATAA	AAAATAAATA	GACGTATTTT	CAAAAAAAC	maAATGCATA	12180
TTTATATTAG	CAAAACGACG	ATTTAAATCG	TCGTTTTTTT	GTAGTACGAC	GGGCATGTCG	12240
TATATCTGAG	GTGTAAGTCC	TCAGCCTGAC	TATCGTGAGG	TAGCAGGGAG	AGGAAGGGAT	12300
AGCGAAATCG	TGGCTCTACG	AACAGGAACG	TGATAGTAAG	GCGTATATAG	CGGATAAGGA	12360
GGCTTCAAAC	TCTAAAGTCC	AAAAAGGTAG	TCGTAACCTA	TATGTGTAAA	TCACGAGAGT	12420
AATTGAATTC	GGACTAAGGT	TTGTGTGAAA	AAGATAAATC	TTTCTAGAGT	CTAAAGACTC	12480
TGCGTCAGAT	TTCTATTTT	CACTGTAACC	TTTAAACGTC	CTCATATCTT	GTATAAACGA	12540
GGAAAGATGT	ACGACTTATC	CCGTGAGGTT	TCATGAGCGT	GAAAGCGTAG	TAACAACGAA	12600
TCATGAGAAG	TCAGCCGAGC	CCATAGTAGT	GAGGAAACTT	CCGTAATGGA	AGTGGAGCGA	12660
AGGGG						12665

(2) INFORMATION FOR SEQ ID NO: 135:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5305 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 135:

CGCTAATCAC TACAATCATT TTATTGTACT TTTTCACTCT CAAGAAAAGC AAGAAGTATT

60

916

CATTTTAGTT TCATTTAGTA TTATTTTGCA TACCTAAAAAT ACAGTAAAAA ATCAGTCATC	120
TTGGTATGCT CCTGCTTTCA CTATTTCAACA CGTTTTTGAC TTATACTAGG CTCATTTCCA	180
AAAGCATTAT ATAATAGTGA TATGAAACCA ACTAACTAA ACAAGAAATA TAAGCAATAA	240
AAATTCGTTT AAAAGATCTT ACTAAAGCTA ATACTAAATA AAAATAAAAG AGTAAACTAG	300
GAAGTTTATT TCAAACAACC TAAAATACTG ATTTTCGGCT GAAGATAATA CTGGAGTGCA	360
AATTAATGGG GTTATAATAA ATAGCTGATA GCTTGTTGTTG GTTTTGGATT TTTTAAGAGT	420
AGATGAGTAT TAAAACTATA AGGAGGACGA AGGTGGCTAA AAATTTAAAA TTAATAATTAG	480
CTCGGGTAGA GCGTGATTTA ACACAAGGTC AACTGGCAGA GGCTGTCGGG GTGACACGCC	540
AGACTATTGG TTTAATAGAG GCGGAAAAT ACAATCCCAG TCTCTCGCTC TGCCAGTCTA	600
TTTGCAGATG TTTAGGAAA ACCCTAGACC AACTATTTTG GGAGGAAGAA GATGAAAAAT	660
AGATTTTATT ATTCTCAATT ACTAGACGAA AGAGAAGAAC AACTGTCAA TAAAGCGGGC	720
TCTGAAAGTT TCTATATCTG CATTGCTTTG TCGCTCCTAT CTTATATCAT TTCAGTATTA	780
GCACCAAGCC TTTTAAATTC TAATATGCTG CTAATCGTTA TCATCATAGG GACATTTTAC	840
TTTTTCAATC GTGCCCGTTA TCTGGGAGTG ACCTACTATG GTCGTTTCA TTTTACGATT	900
TTGGGTGTT TTTTCCTAAC CTTGGCTATT ACGGCTCTTT TGATGTGCA GAATTATCAA	960
TTCAACATAG AAATTTATCA GCACAATCCT TTGAATTTTA AATACCTGTC TGCTTGGGTC	1020
ATTACTTATA TCATTACCT TCCGTGGATC TTTATTGGCA ATCTTGGTCT TAAGAGCTAT	1080
GGCGAATGGG CTCAGAAAAA ATTTGAACAA GATATGGATG AATTGGAGAG TGGAGAATAG	1140
CTTGTTACTC TTTTCTCAAT CCAGCTAAAA TGTGATATAA TAGTACTAAT TTATTGGAAT	1200
ACATGAAAGT TCTTGAAAT TTTTCATGGT TTCTAGCTAA GGAAGTAGGA AAAGTATGTA	1260
TCCAGATGAT AGTTTGACAT TGCACACGGA CTTGTACCAG ATCAACATGA TGCAGGTTTA	1320
CTTTGACCAA GGGATTACAA ATAAGAAGGC GGTCTTTGAG GTGTATTTCC GCCAACAGCC	1380
TTTTAAGAAC GGCTATGCGG TTTTGCAGG TTTAGAAAGA ATTGTGAAC ATCTTGAAGA	1440
CTTGCGTTTT TCAGATAGTG ATATAGCCTA TTTGGAGTCG CTTGGTTATC ATGGGGCGTT	1500
CTTGGAATTAC CTTGCAATT TCAAGTTGGA GTTGACCGTT CGTTCTGCCC AAGAAGGGGA	1560
TTTGTTTTTT GCTAATGAAC CGATTGTGCA GGTGGAAGGA CCTCTAGCCC AATGTCAGTT	1620
GGTCGAAACG GCTCTTTTGA ACATCGTCAA CTACCAGACT TTGGTGGCGA CGAAGGCAGC	1680
TCGTATTCGT TCGGTATCG AAGATGAACC CTTGATGGAG TTTGGGACAC GTCGGGCTCA	1740
AGAAATGGAT GCGGCCATCT GGGGAACACG CGCAGCTGTG ATTGGTGGCG CCAATGGAAC	1800
CAGCAACGTG CGTGCGGTA AGCTCTTTGA CATTCCTGTT TTGGGAACCC ATGCCCATGC	1860

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CTTGGTACAG	GTTTATGGCA	ATGACTATGA	AGCTTTCAAG	GCTTACGCTG	CGACCCACAA	1920
AAATTGTGTC	TTTCTTGTGG	ATACCTATGA	CACCCTTCGC	ATCGGTGTAC	CAGCTGCCAT	1980
TCAGGTGGCG	CGTGAGCTGG	GTGATCAGAT	TAACTTTATG	GGTGTGCGGA	TTGACTCTGG	2040
GGATATTGCC	TACATTTCTA	AGAAAGTCCG	TCAGCAACTG	GATGAGGCTG	GATTTACAGA	2100
GGCTAAGATT	TATGCTTCTA	ATGATCTAGA	TGAAAATACC	ATCCTTAACC	TCAAGATGCA	2160
AAAGGCCAAG	ATTGATGTCT	GGGGTGTGGG	TACCAAGCTG	ATTACAGCCT	ATGACCAGCC	2220
GGCTCTTGGG	GCGGTTTACA	AGATTGTTGC	AATCGAAGAT	GAAACTGGTC	AGATGCGCAA	2280
TACGATTAAG	CTGTCTAATA	ATGCTGAAAA	AGTTTCTACG	CCAGGTAAGA	AGCAGGTGTG	2340
GCGCATTACC	AGTCGTGAAA	AAGGCAAGTC	AGAAGGCGAC	TATATCACTT	ATGATGGTGT	2400
GGATATTAGC	GACATGACAG	AAATCAAGAT	GTTCCATCCG	ACCTATACAT	ACATCAAGAA	2460
GACGGTTCGT	AATTTTGATG	CCGTTCTCT	CTTGGTGGAT	ATCTTCAAAG	AAGGAATATT	2520
AGTTTACAAC	TGCGCTAGTT	TGACTGACAT	TCAGGATTAT	GCCCCGTAAGG	AATTTGACAA	2580
GTTGTGGGAT	GAGTATAAGC	GTGTGCTCAA	TCCGCAGCAC	TATCCAGTGG	ATTTGGCGCG	2640
TGATGTATGG	CAAGATAAGA	TGGACTTGAT	TGATAAGATG	CGCAAGGAAG	CCCTTGGTGA	2700
AGGAGAAGAA	GAATGAGTTT	GCAAGAAACG	ATTATCCAAG	AGCTGGGTGT	CAAACCAAGT	2760
ATTGATGCCC	AGGAAGAAAT	CCGTCGTTCT	ATTGATTTCT	TAAAAAGATA	TCTGAAAAAA	2820
CATCCCTTCC	TAAAAACCTT	TGTACTAGGG	ATTTCTGGGG	GACAAGACTC	AACCTTGGCA	2880
GGACGTTTGG	CGCAATTAGC	TATGGAAGAA	CTGCGAGCTG	AAACGGGAGA	CGATAGCTAC	2940
AAATTTATCG	CTGTCCGCCT	GCCATACGGA	GTGCAAGCTG	ATGAAGCAGA	TGCTCAAAAA	3000
GCCCTAGCCT	TCATCCAGCC	AGATGTCAGC	TTGGTTGTGA	ATATCAAGGA	ATCAGCTGAT	3060
GCCATGACAG	CTGCAGTTGA	AGCGACAGGT	AGTCCTGTTT	CAGACTTCAA	CAAGGGGAAT	3120
ATCAAGGCAC	GTTGCCGTAT	GATTGCTCAG	TATGCCCTTG	CTGGTTCCCA	TAGCGGAGCG	3180
GTCATTGGAA	CAGACCACGC	CGCGGAAAAT	ATCACAGGTT	TCTTTACCAA	GTTTGGTGAC	3240
GGCGGTGCGG	ATATTCTCCC	TCTTTACCGC	CTCAATAAAC	GCCAAGGAAA	ACAGCTCTTG	3300
CAGAAACTTG	GCGCAGAGCC	AGCCCTTTAT	GAAAAAATCC	CAACGGCAGA	CCTAGAAGAA	3360
GATAAACCAG	GCCTAGCTGA	CGAAGTCGCA	CTTGGAGTCA	CCTACGCAGA	GATTGACGAC	3420
TACCTAGAAG	GCAAAACAAT	CAGCCCAGAA	GCTCAAGCGA	CCATTGAAAA	CTGGTGGCAC	3480
AAAGGCCAAC	ACAAACGCCA	CTTACCCATC	ACCGTATTTG	ATGACTTTTG	GGAGTAAAAA	3540
GGTCCGGGGG	ACCTTTTATG	CTTCTTGCCC	TGAAATTAAA	AAGCAAGAAA	AACCTCCACT	3600

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GGAGGTTTTTC AGCCTCTCAT CTTGAAATAA GAAAGTGAGA GAAGGTCTGG GGGATCTTGA	3660
ACCCCGAGTT TAGAAATAAG AAAATGAGGC AGATTTCAGTA ACTCGAAGAG TTCGATTTC	3720
TCGTCTTACC CCTGCAACGA TGACTAGGTT TGAAAAAGCT TGCTAGAGCG CATTTCAAAC	3780
CAGGCAGCAA CTGCGTCAAG AAATTAGAAG ACAAACCTCGT TTTCTAGCTG TTAGTGAGTT	3840
GAGCCTTTTT ACTACGAGTA TAGAAATAAG GAAGTGAGGT AGCATCATGA AATCTATCGG	3900
TACGCAAATA TTACAGACAG AACGTTTGAT TTTAAGAAGA TTTGTGGAGA GTGATGCAGA	3960
AGCCATGTTT CAAAATTGGG CTTTCATCCGC TGAGAACTCG ACCTATGTGA CCTGGGATCC	4020
CCATCCTGAT GTCGAAATCA CTCGAAACTC GATTTCGAAT TGGGTTGCTT CCTATACTAA	4080
TCTCAACTAT TATAAATGGG CCATTGTGCT AAAAGAAAAC CCAGAGCAAG TAATAGGAGA	4140
TATCAGCATT GTTAAGATAG ACGAGGCTGA TTTAAGCTGT GAAATTGGCT ATGTGTTAGG	4200
CAAGGCTTAC TGGGGAAATG GTATGATGAC AGAGACTTTG AAAGCTATCT TGGACTTTTG	4260
TTTTACTCAA GCAGGTTTTT AAAAGGTCAG AGCACGTTAT GCCAGTCTCA ACCCAGCTTC	4320
AGGTCGTGTC ATGGAAGAG CTGGAATGTC CTATCTACAA ACCATTGTGA ATGGTGTAGA	4380
GAGAAAAGGC TATCTTGCGG ATCTTATTTA TTATGGTATA AGTAGGAAG AATGTTGAAT	4440
TCTATTTTCT GTTTCTATCG AAGTCAACTA TTTATTGTAA ATATAATAAT TAGCATTC	4500
AGTTTATTTG AAACTTTAAA ATAGCATATT GATTAGTACA AGACAGATGT TCTAGTTCCT	4560
TCTTTAATCT GGTTTAGTGT TAGTTAAAA ATCGCTTTAA GCTTGTAAC AAGAGGGAGC	4620
TAATCGACTA GATTCTCCAG CCGAACAGGI GGTAATGTAC TTTTATAGT GTAATCCTAG	4680
CTGTTGTAA ATTTAAAATA GAATCCTCTA TCGAGTTAGG GAATTAAATT CAACCAATTT	4740
TATTCATGTT TTTTCTATCA AATTATCTAA TATTAAAATA GTCTCATTCT GATGAGAAAA	4800
CTATTCCTCA ATCATTCATA CCTCTCTCAA CTAGATGTAA CTTACAAAAC CCCTGACCTC	4860
ATGAGCCACT TTCTTCCTCC TCATGAGGTC AGTTTACTT TCTGCTGTT CAGTATCGTT	4920
TTTCCTCGCT AGATTTCCTC AAAAGGGCAG ACTCCTCCCT TGGTGCGTCA CACGATTTTT	4980
TCATCTCGAC TGTTCCTTAA TGCATCATTA ACGACGCTT TCTTCTAGGT GGTTTATAAG	5040
GAACAGGAAG ATTCAGGTTG ACTTTTCTAA TCCTAGAATA AAGTGCTGAA AACAATTCGG	5100
AATAGGCATA GAGACTAGAC AATTTGAGGA GCTGCTTGC TCCTGTTCGA ACACATTTTC	5160
CCACCACGTG AAGAAAAAGA TGGCGGAAGC GTTTGATTGT TAAAGTTTGG AAGTCACCTC	5220
CAGCTAGATG TTTGAGAAAA AGATAGAGAT TGTAGGCGAT ACAGCTCATC ATCATACGAA	5280
CTTCGTTTTT GATTAAGGTT GAACT	5305

(2) INFORMATION FOR SEQ ID NO: 136:

919

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 3964 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 136:

TGGCAGCTCG TCGTCGTAAA GGACGCAAAG TTTTGGCTGC ATAATCCAAA CGAATTCTAT	60
CAAAAATCAG TAGGAACCTCG AGTCTACTGA TTTTATTTT TGTAAAAAAG TTCAGTAGAT	120
GCAAATGGAT TCGGAAGCGA TGTTACAGTA GATTGAAACT AGAATAGTAC ACCTCTGTTT	180
CTAAAACATT GTTAGAAATC GATTGACTG TCCTGATCGA TTTGTCCCTGT TATTATTTTA	240
TTTTACTATA AAGTTGAAGT AGGTGGAGAT GGTACAGCAA CAATCGTCTT TAAAGATGGT	300
TCAGCTATTA CAATTCCAGG AAATCAATTG GTAGCACAAAG ATCCAAAAGC ACAAGATAGC	360
ACTAAACTGA CTGCTGAAAA ATCAACTGTT AAAGCACCTG CTCAAAGAGT AGATGTAAAA	420
GATATAACTC ATTTAACAGA TGAAGAAAAA GTTAAGGTTG CTATTTTACA AGCAAATGGT	480
TCAGCATTAG ACGGAGCGAC AATCAATGTA GCTGGAGATG GTACAGCAAC AATCACATTC	540
CCAGATGGTT CAGTAGTGAC GATTCTAGGA AAAGATACAG TTCAACAATC TGCGAAAGGT	600
GAATCTGTAA CTCAAGAAGC TACACCAGAG TATAAGCTAG AAAATACACC AGGTGGAGAT	660
AAGGGAGGCA ATACTGGAAG CTCAGATGCT AATGCGAATG AAGGCGGTGG TAGCCAGGCG	720
GGTGGATCAG CTCACACAGG TTCACAAAAC TCAGCTCAAT CACAAGCTTC TAAGCAATTA	780
GCTACTGAAA AAGAATCAGC TAAAAATGCC ATTGAAAAAG CAGCCAAGGA CAAGCAGGAT	840
GAAATCAAAG GCGCACCCTT TTCTGATAAA GAAAAAGCAG AACTTTTAGC AAGAGTGGAA	900
GCAGAAAAAC AAGCAGCTCT CAAAGAGATT GAAAAATGCGA AACTATGGA AGATGTGAAG	960
GAAGCAGAAA CGATTGGAGT GCAAGCCATT GCCATGGTTA CAGTTCCTAA GAGACCAGTG	1020
GCTCCTAATG CTGCTCCTAA GACAACAAGT GCACCGCAAG CAACTGCAGG AACAATGCAA	1080
GATGTTACCT ACCAGTCACC TGCTGGCAAA CAATTACCTA ACACAGGTTT AGCATCAAGT	1140
GCAGCACTTG CTAGTCTTGG TCTAGTGGTG GCAACAAGTG GTTTTGCTTT GCTAGGAAGA	1200
AAGACTAGAC GTAGAAAATA GAACAGCTAG AAAATTCTAT TCTCTACTTA AAGTTAGATT	1260
ATAAGGGGGA TTTTGAGAAG TCATCAATCC TAGTGATGGG TGAGAAAAGT GAGAACCCAA	1320
GATAATCACA TACTTTAGCT GAATAGGAAT ATTCTATCAA TGTAGCCAAT CTCTTCTGTC	1380
TCTAACTGTG GAATAGGAGA TGGGCAATAT CGGATAGAAA AGATAGCAGA ATAGCTCTCT	1440

920

ATTGAAGAGA GGAGGGGAAA CCGAAAAATT AGGTGCCCCCT CCTCTTTTTT GGTATAATAG	1500
AAGATAGAAA ACGAGGTTAG AAGAGATGAT TTTTGATACA CATAACACT TGAATGTAGA	1560
AGAATTTGCA GGTCTGTAGG CAGAAGAAAT TGCCTTGGCT GCTGAGATGG GTGTGACACA	1620
GATGAATATT GTTGGTTTTG ATAAACCGAC GATTGAGCAT GCCTTGGAGT TGGTAGATGA	1680
GTATGAGCAG CTCTATGCGA CTATTGGTTG GCATCCTACA GAAGCTGGTA CTTATACAGA	1740
GGAAGTTGAG GCTTACTTGT TGGATAAGTT AAAACATTCC AAGGTTGTGG CTTTAGGTGA	1800
AATTGGCTTA GATTACCATT GGATGACAGC GCCCAAAGAG GTGCAGGAGC AGGTTTTTCG	1860
CCGTCAGATT CAGCTATCTA AGGACTTGGA TTTGCCTTTT GTTGTCCATA CCCGTGATGC	1920
GCTGGAAGAT ACCTATGAGA TTATCAAGAG TGAGGGCGTT GGTCTCGTG GTGGTATCAT	1980
GCATTCATTT TCAGGGACGC TTGAGTGGGC AGAGAAGTTT GTGGATCTTG GTATGACCAT	2040
TTCCTTCTCA GGAGTGGTGA CTTTAAAGAA GGCAACTGAC CTCCAAGAAG CAGCTAAAGA	2100
GTTACCTTTG GACAAGATGT TGGTGGAAC AGATGCGCCT TACTTAGCAC CTGTACCCAA	2160
GCGTGGTCGT GAAAATAAAA CAGCCTATAC TCGCTATGTG GTCGACTTTA TCGCTGACTT	2220
GCGTGGTATG ACGACAGAAG AGCTGGCGGT AGCAACGACT GCAAATGCAG AACGAATTTT	2280
TGGACTGGAC AGCAAGTAAT GAAAGAGAAA ATTTCTCAAG TTATCGTGGT TGAAGGGCGT	2340
GATGATACGG TCAATCTCAA ACGTTATTTT GATGTGGAGA CCTATGAGAC TCGAGGTTCT	2400
GCCATCAATG CTCAGGATAT AGAGCGGATT CAGCGCCTGC ACCAACGTCA TGGAGTCATT	2460
GTCTTTACAG ACCCAGATTT TAATGGGGAA CGGATTCGGC GCATGATCAT GATGGTCATT	2520
CCAACAGTTC AGCATGCCTT TCTCAAGCGA GATGAAGCTG TTCCCAAGTC CAAGACCAAG	2580
GGGCGTTCCT TGGGAATTGA GCATGCCAGC TATGAAGACC TGAAAACGGC TCTAGCTCAA	2640
GTGACAGAAC AATTGGAACA TGAGAGTCAG TTTGACATTA GTCGTAGCGA TTTGATTTCG	2700
CTTGGTTTTT TAGCAGGGGC AGACAGCCGT AAGCGTAGAG AATATCTCGG AGAGACTCTC	2760
CGAATCGGCT ATTCCAACGG CAAGCAACTC CTCAAACGCC TAGAGTTGTT TGGGGTTACT	2820
TTGGCAGAAG TGGAAGAAGC TATGAAATCT TATGAGTAGG AAAGATGTAG CCGTTACAAT	2880
TTTTTAAGTT TCACAGTATT TTTCGAAGCA GGTAGAAGAG GAGGCGTCTG ATGTTAATTG	2940
GTCAAAAAAT TAAAGAGATT CGGATAGAAA AAGGAATTAG TCGTCCAGAT TTTTGTGGAG	3000
ATGAGCAAGA ACTGACAGTT CGTCAACTGT CGCGAATTGA AAGTGGAGCT TCGCAACCGA	3060
GTTTGCCCAA GTTAGACTAT ATTGCTCGCC GGCTAGGAGT TCCAGTTTAT AGCCTTATGC	3120
CGGATTTTTC AGCTCTTCCT TCTGCTTATT TAGAATTGAA ATACCAGATT TTACGTGAAC	3180
CAATCTATGG TAAAGAAGAG GAGTACGATA AGAAGGAAGC GTGTTTGGAA GAGATTTATA	3240



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AAACATACTT TGATAATCTT CCTAAAGAAG AACAAATTAGC ATGTGAAGTA TTGCAGGCGT	3300
GTTTGGATAC TTCTAGAACT AGAAGGCCTG AATATGCAGA GTTAATACTT GAGGAACATA	3360
TGCCTCAGAT TATAGAAAAA GAAGCTTATT CAATAAATGA TATGTTGTTG ATTCGTTTGT	3420
TTTTTTATCA AATGCTCATT AGAAAAGATC TTGCCAAAT TATAAATCAA ATCGAAAAGC	3480
TAATGCTCTT TCTTTTGGA CAGAAGAAGG TAACTCAAAT AGAGAATTAC TTTATAATTA	3540
GAGATACTCT TATTTAGGA ATGTGTTGTC TTGAAAAGGT AGGAGTAACT GATTGTTTTA	3600
ATGATTATCT ATCGTGTTTA CAAGAAATTA TGGATAAAAC TCAAGATTAT CAAAAGAAAC	3660
CTCTGTATT TATGTTTTTG TGGAAGCAAG CATTAAGAGA AGAAAGAGAT TTTAGTTTAG	3720
CTGAATCAT TATCAGTCT TCTAAACAT TTGCGCAGCT AATTGGAGAT GAATTCTAG	3780
TAAAGAAAT GACAGAGGA TGGCAAGAG ATGTCAAAAA ATATTTATAA ACATAGTGAA	3840
TCAGTGACAA AGATGTCCTT GTCCTCGTAT CAAACAGTT CTAAAGTTCG TCTTTAGGGA	3900
TGTTTTTTTA GATATAAGCT AAAAATGACA CGAAATGGTT AGATTTTAAG GACATTGATG	3960
TCCG	3964

(2) INFORMATION FOR SEQ ID NO: 137:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12666 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 137:

TGAGACCGT ATTTGTATTA GGGAAATGGG TATCTATTTT TAATGCTGTG GGGATTTTGA	60
TTGTTTCTAT TATTCAAACC AAAAGCTTGT CAGGTATTGG AGCAGGATTG TTTAATCTAT	120
ATAACATTTC ATCTTATATA GGTGATTTAG TTAGTTTCAC TCGATTGATG GCATTAGGAT	180
TATCTGGAGC AAGTATAGCA TCAGCTTTCA ATTTAATTGT TGGTTTGTTT CCGGGAATAT	240
TGGCTAAACT GACAATTGGA TTAGTATTAT TCATTCTTTT ACATGCGATC AATATTTTTC	300
TATCGTTACT ATCAGGATAT GTTCATGGAG CACGTCTGAT ATTTGTTGAA TTTTTTGGA	360
AGTTTATGA GGGTGGAGGA AAACCATTTC AACCTTGAA GGCTTCTGAG AAATATATTA	420
AGGTTATTAC AAAGAATTAA TGGAGGATAT ATATAATGGA ACATTTAGCA ACTTATTTTT	480
CAACCTATGG AGGAGCTTTC TTCGCTGCAT TGGGAATTGT ATTGGCGGTT GGATTAAGCG	540
GTATGGGGTC TGCTTATGGA GTTGGAAGG CTGGGCAATC TGCCGCAGCT TTAAGTAAAG	600

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AACAGCCTGA AAAGTTTGCC TCAGCTTTGA TATTGCAATT ATTGCCCGGA ACACAAGGAT	660
TATATGGTTT TGTATTGGGA ATTTTAATTT GGTGCAATT AACTCCAGAA CTTCTTTAG	720
AAAAAGGCGT TGCTTATTTC TTTGTAGCTC TTCCAATTGC TATTGTAGGA TACTTTTCAG	780
CTAAGCATCA AGGAAATGTA GCAGTAGCGG GAATGCAAAT CTTGGCTAAA AGACCAAAAG	840
AATTCATGAA GGGAGCAATT TTAGCTGCCA TGGTAGAAAC CTATGCAATT CTTGCTTTTG	900
TCGTATCATT CATTTTGACC CTTCTGTAT AAGAAATAAA TTTGCAATTC AAAGGAGGTG	960
TCTAAATGAG CAATTTAGAA AACTTACGAG AGTCTGTTAT TGAACAAGCT CATGAAAAAG	1020
GGCGTATGAA ATTATTGGAT TCCAAAAAGA AGATTGATGA TGAATTTGAA ATGCAAAAGT	1080
CGCTCATTAT AAAGAAAAAA GAAGCTGAAC ATGAACGAAA GTTAAAAGAA TTGCAACAGA	1140
AATATCAAAT AATTTTCAA CAATTAATAA ATAAGGAACG CCAATCAACG TTAGTATCAA	1200
AACAGAAAAT ATTAAAAGAA CTTTTTCAAT CTGCTTTACT AGAAATGGAA TCTTGGAGTG	1260
CAGATAAAGA AATGGAGTTC ATCTATCGAA TTCTGGAACG ATATTCACAA CAAGAGGTCA	1320
TAGTAACCTT TGGGGAACGG ACTTTAGCTA AATCAATTT GGAACAATTA GAGAAATTGA	1380
AATTCTCTTT TCCAAATTAT TTATTTAGTG AACAACCTAT CTCAAATGAA TCAGGCTTAC	1440
TTATTTCAAT AGGTAAATTT GATGATAACT ATTTGTATAA AACATTAATT GGATCGATTT	1500
CTAAGGAAGA AAGTTCAAGT ATCGCAAATC AAATTTTAT CAATTAAGGA TGAAATTGGT	1560
TAATCCTTCT TAGAAATTG GAGTATTCCA ATAAATTAG AAAGGTATTT TATGGATACT	1620
AATCTTTTTT CAAAAATAAA TACGACGATT TCGGTAAAAG AAAACGATTT TATTACAGAA	1680
GAAAAATTTC AAAAAATTAT ACAATCCAAA GATACGGAGA CATTGGCATT TATCTTAGAA	1740
TCAACTCCCT ATCATTTATC GATTGACATC TTAGAAGATC CTAGTCAGAC AGAGATTTCTG	1800
CTAATGACAA AATTAGTCAA TGATTATAGA TGGGCCTATG CTGAAAGTCC GTCTGATATA	1860
ATTGTGACTT TATTTGCTTT ACGATATGTT TATCATAATA TCAAAGTTT ATTAAAATCT	1920
AAGGCGGCAA TTAAGAAAGA TTTTCTAAA TTATTAATTC CAATAGGGAT TTTTGATATA	1980
GAAAGTTTAA AACATTTAGT TTCTTCCTTA CATTCAGATA CACTTCCTGA TTTTATGGTT	2040
CGTGAAGTAG AATCAATTG GAATGAGTAT GAACTTTTA ATAATATTCG TGFACTTGAT	2100
GTCGGAGCTG ATCTAGCATA TTTTAAACAT CTGAAACTTT TATCTAATGA GTTAGATGAG	2160
GTACTGTCTC AGGTTATTGT CGAAATGATT GACTTTTATA ATATTATTAC TGTAAAACGT	2220
GGTTTATCTC AAAATAAGAG TCATGGGGAT ATTTTACAAT TACTTTTACA TGAAGGAAGT	2280
ATTTCTGCTA AAGAATTTAT ATACATTGTA GAAAATCAAG AAATATTTGT GTGGTTCAAT	2340
AAAATAAATC CAAGCTTAGA TTCAATCTTT TCAACTTATG AATTGAAGAT GCAGGACGCA	2400

ACAATTTTCAT	CTTCTGAGTT	AGAATTTTTA	TGTGATTTAC	TATTGTATAA	AACTTTAGAT	2460
CAAGGAAGGT	ACAATGTAGA	GGGGCCGTTA	GTTCTTGCTA	GATATTTATT	GGGATGTGAG	2520
TTTGAAGTAA	AGAATCTCAG	AATGATCATA	TCAGCTCTTC	AAAATACAAT	TCCCTTTGAA	2580
TCAATAAAAG	AAAGGATACG	CCCACATTAT	GGAAGCTAAT	AAGTATAAAA	TTGGCATAAT	2640
TGGTAGCCGT	GATATTATTT	TACCATTTAG	CATGATTGGG	TTTGATATAT	TCCTGCCTA	2700
CCAAGAACAA	GAAGCTATAA	ATACACTAAG	AAAATTAGCT	CAATCTGATT	ATGGTGTCAT	2760
TTATATCACT	GAAGACATTG	CTTCAATGAT	ATTAGATACA	ATTCGCCATT	ATGATTCCCA	2820
AGTTGTGCCT	GCTATTATTT	TATTACCGAC	TCATAAACAA	GGTTTAAATT	TAGGATTAAA	2880
ACGTATAGAG	GATAATGTAG	AGAAAGCAGT	AGGACACAAT	ATTTTATAAT	AATGTACAAA	2940
ATTGTCTGTA	ATATTATTCT	ATAATTTTGT	GACTTAGTAA	GGAGAATAAC	TTTGACTION	3000
GGGAAGATTA	TAAAAGTATC	GGGACCTCTA	GTTATTGCAT	CAGGTATGCA	GGAGGCTAAT	3060
ATTCAAGATA	TTTGCCGTGT	AGGTAAGCTA	GGGTTAATCG	GTGAAATTAT	TGAAATGAGA	3120
AGAGATCAGG	CATCTATCCA	AGTCTATGAA	GAAACATCTG	GTCTTGCTCC	GGGAGAACCT	3180
GTTGTTACAA	CTGGAGAACC	TCTCTCGGTT	GAATTAGGGC	CAGGATTGAT	TTCTCAAATG	3240
TTTGATGGCA	TACAACGCCC	ATTAGATCGA	TTTAAATTGG	CTACTCATAA	TGATTTTCTA	3300
GTTCTGTGGG	TAGAAGTTCC	AAGTTTGAT	AGAGATATTA	AGTGGCATT	TGATTCCACT	3360
ATAGCAATTG	GTCAAAAAGT	GAGTACGGGT	GATATTCTTG	GAACGTCAA	GGAAACCGAG	3420
GTAGTTAATC	ATAAAATTAT	GGTTCCTTAT	GGAGTATCTG	GAGAAGTCGT	TTCTATTGCA	3480
TCTGGCGATT	TTACAATTGA	TGAAGTTGTA	TATGAAATAA	AAAAATTGGA	CGGTAGTTTC	3540
TATAAAGGAA	CGCTTATGCA	AAAATGGCCT	GTCCGCAAGG	CGCGTCCTGT	TTCTAACCGT	3600
TTAATTCCAG	AAGAACCATT	AATCACAGGT	CAACGAGTTA	TTGATGCATT	CTTTCCAGTA	3660
ACCAAAGGGG	GAGCTGCAGC	AGTTCCTGGA	CCGTTTGAG	CAGGAAAGAC	AGTTGTACAA	3720
CACCAAGTAG	CTAAATTTGC	CAATGTTGAT	ATTGTTATTT	ATGTCGGTTG	TGGAGAACGT	3780
GGAAATGAAA	TGACGGATGT	ACTGAATGAG	TTTCCTGAGT	TGATTGACCC	TAATACCGGA	3840
CAATCAATTA	TGCAACGGAC	AGTTCCTGATT	GCTAATACTT	CAAATATGCC	TGTTGCTGCT	3900
CGTGAGGCTT	CAATTTATAC	AGGAATTACC	ATGGCTGAGT	ATTTTCGTGA	TATGGGCTAC	3960
TCTGTCGCCA	TTATGGCTGA	TTCAACTTCA	CGTTGGGCAG	AAGCGCTACG	TGAAATGTCA	4020
GGACGTCTAG	AAGAAATGCC	TGGTGATGAG	GGTTATCCTG	CTTATCTGGG	AAGTCGTATC	4080
GCTGAATATT	ATGAAAGAGC	AGGACGTTCT	CAGGTTCTAG	GGCTTCCAGA	ACGTGAAGGA	4140

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ACGATTACTG	CTATTGGAGC	TGTATCGCCA	CCTGGTGGAG	ATATTTTCAGA	ACCAGTTACT	4200
CAAAACACTT	TACGGATTGT	GAAAGTTTTT	TGGGGGCTTG	ATGCTCCGTT	GGCACAGCGA	4260
CGTCATTTTC	CTGCAATTAA	CTGGCTTACA	TCTTATTCAC	TATATAAAGA	CAGTGTGGGC	4320
ACTTATATAG	ATGGTAAAGA	GAAGACAGAT	TGGAATAGTA	AAATAACTCG	TGCGATGAAC	4380
TACTTACAAC	GGGAATCTAG	TTTAGAGGAA	ATTGTTTCGTC	TTGTTGGAAT	TGATTCTCTG	4440
TCTGATAATG	AACGACTAAC	GATGGAAATT	GCTAAACAAA	TTCGAGAAGA	TTATTTGCAA	4500
CAGAACGCTT	TTGATTCCGT	AGATACATTC	ACTTCGTTTG	CAAAACAAGA	AGCAATGCTA	4560
AGTAATATTC	TCACTTTTGC	TGATCAGGCA	AATCATGCTT	TAGAGTTGGG	TTCTTACTTT	4620
ACAGAGATTA	TGGAAGGTAC	CGTGGCAGTT	CGAGACCGTA	TGGCGAGAAG	TAAATATGTT	4680
TCAGAAGATA	GATTAGATGA	AATCAAAATT	ATATCAAATG	AGATTACACA	TCAAATTCAT	4740
TTGATATTAG	AAACAGGAGG	TCTATAAATG	AGTGTTATAA	AAGAATACAG	AACTGCTAGT	4800
GAAGTTGTTG	GGCCTCTTAT	GATTGTTGAA	CAAGTAAATA	ATGTGTCTTA	CAATGAGTTA	4860
GTTGAAATTC	AACTTCATAA	TGGAGAAATT	CGTCGTGGAC	AAGTTTTAGA	GATCCACGAA	4920
GATAAAGCAA	TGGTTCAGCT	TTTTGAAGGA	TCTAGTGGAA	TAAATTTAGA	AAAGTCTAAA	4980
ATTTCGTTTTG	CTGGTCATGC	ATTAGAATTG	GCTGTATCTG	AGGATATGGT	TGGTCGTATT	5040
TTTAATGGGA	TGGGAAAACC	AATTGATGGT	GGACCAGATT	TAATTCCAGA	GAAATATTTA	5100
GATATTGATG	GTCAAGCTAT	TAATCCTGTA	TCTAGAGATT	ATCCAGATGA	ATTTATTCAG	5160
ACAGGGATCT	CCTCTATTGA	TCATTTGAAT	ACTCTTGTA	GTGGTCAAAA	ATTACCAGTA	5220
TTTTTCAGGTT	CGGGCTTACC	TCATAATGAA	TTAGCTGCTC	AGATAGCAAG	ACAAGCGACT	5280
GTTTTAAATT	CTGATGAAAA	TTTTGCGGTT	GTATTTGCAG	CAATGGGTAT	TACTTTTGAA	5340
GAAGCTGAGT	TTTTTATGGA	AGAACTCAGA	AAAACAGGAG	CGATCGATCG	TTTCGGTTTTA	5400
TTTATGAACT	TGGCAAATGA	TCCTGCAATT	GAGCGTATTG	CAACTCCCCG	CATTGCTTTA	5460
ACTGCGGCAG	AGTATCTAGC	TTTTGAAAAA	GATATGCACG	TTCTAGTTAT	CATGACGGAT	5520
ATGACTAACT	ATTGTGAAGC	GTTACGTGAA	GTCTCGGCAG	CTCGCCGTGA	AGTTCCAGGG	5580
AGACGAGGCT	ATCCGGGATA	TTTATATACA	AATTTATCAA	CTCTATACGA	AAGGGCTGGT	5640
CGCTTAGTTG	GTAAAAAAGG	TTTCGGTGACA	CAGATTCCTA	TTTTAACAAT	GCCAGAAGAT	5700
GACATAACAC	ATCCAATTCC	TGATTTAACT	GGATACATTA	CTGAAGGGCA	AATTATTTTG	5760
TCGCATGAGT	TGTATAATCA	AGGTTATCGT	CCACCAATCA	ATGTTTTACC	TTCTCTCTCT	5820
CGATTAAAAG	ATAAGGGATC	TGGAGAAGGT	AAAACTCGTG	GAGATCATGC	TCCAACATATG	5880
AATCAACTGT	TTGCAGCCTA	TGCCCAAGGG	AAAAAGGTTG	AAGAGTTAGC	AGTAGTATTA	5940

925

GGAGAATCGG	CTTTATCTGA	TGTAGATAAA	TTGTATGTGA	GGTTTACAAA	GCGTTTTGAA	6000
GAAGAGTACA	TAAACCAAGG	ATTTTATAAA	AATCGAAATA	TAGAAGATAC	GTTGAATCTT	6060
GGGTGGGAAT	TACTATCAAT	TCTTCCTAGA	ACAGAGTTAA	AACGTATCAA	AGATGATTTG	6120
CTTGATAAAT	ACTTACCTTT	GGTAGAAGTT	TAATCCGGAA	ATGGAGTGAT	TATCTATGGT	6180
ACGTTTGAAT	GTAACCAAC	CTCGTATGGA	ATTGAATAAC	TTAAAGGAAC	GTTTGACAAC	6240
AGCTGAACGT	GGACATAAGT	TATTAAAGGA	TAAAAGAGAT	GAATTGATGA	GGCGATTTAT	6300
TTCTTTGATT	CGTGAGAATA	ATCAACTTCG	GAAAGAAGTG	GAAAGTTATC	TAATTGATAA	6360
TCTAAAATCC	TTTGCAGTTG	CTAAATCATT	AAAGAATTCT	CAAATGGTGG	AGGAATTATT	6420
TTCAATTCCA	TCGAAAGAAA	TTGAATTATT	TGTTGAGAAA	GAAAATATCA	TGAGTGTAAC	6480
AGTTCCTAGA	ATGCATATGA	ATATTACTTC	TCAAAATGAG	AACAGTGAAT	ACAGCTATTT	6540
ATCTTCTAAT	AGTGAAATGG	ATGATGTATT	TGCTACAATG	AATAGTTTAA	TTTATAAATT	6600
ACTAAGACTG	GCAGAAGTTG	AAAAAACGTG	TCAGTTAATG	GCTGATGAAA	TAGAAAAAAC	6660
ACGTAGACGT	GTAATGGTT	TAGAATACTC	GATTATTCCA	AACCTGTCGG	AAACTATTCA	6720
TTATATAGAA	TTGAACTAG	AGGAGGCAGA	AAGAGCCAAT	TTAGTTCGTA	TTATGAAAGT	6780
GAAGTAGATC	CTTTATTTAG	ATTATTAATT	AGATGAACAA	ATATCAGCTT	GGATAAGGCT	6840
TTAAGCCTTT	CTAAGCTTTT	TTTATTGACA	GTATCAGGAT	ATCTTTTTC	AAATTTTGGT	6900
TTGTTAGATA	ATGAAAATGT	TTCTACTAAT	CTAGATTTAG	GATTAGTAAA	TCGTAAATGT	6960
AATTATATAG	AAAGTAAGCG	CGTCATAACA	AGGTATCTAT	CATTCATGGA	GCTCCTCCTG	7020
TATACTATTA	GTAAAGTAAA	ACTATTGGAG	GATATTTTAA	TGCCACAACC	TATTGTTTCCT	7080
GTAGAGATTC	CACAACTCTG	TCGTTTTGAT	TCTAAAAAGA	GAAATGATAT	TCTGCTTAAA	7140
ATTTCGTATTG	GCAAGCTTGA	AGTAAGTTTT	TTTCAATCTC	TCAATCTCGA	AATGGTAGAA	7200
CAGCTTTTGG	ATAAGGTGTT	GCTCTATGAC	AATTCATCTA	TCTAGCCTAG	GGGAGGTCTA	7260
TCTCGTGTGT	GGGAAAAC	ATATGAGACA	AGGAATCGAT	TCAGTGGCTT	ATCTGGTTAA	7320
AACCCACTTT	GAATTGGATC	CTTCTCCGG	TCAAGTCTTT	CTCTTTTGTG	GTGGACGTAA	7380
AGACCGCTTT	AAAGTCCTTT	ACTGGGATGG	TCAAGGATTT	TGGCTACTAT	ATAAACGCTT	7440
TGAGAACGGC	AGATTGATTT	GGCTAAGTAC	AGAAAAGGAT	GTCAAAGCTC	TCACACCAGA	7500
ACAAGTAGAC	TGGCTTATGA	AGGGCTTTTC	TATCACTCCA	AAAATATAGT	AGATTGAAAC	7560
TAGAATAGTA	CACCTCTGCT	TCTAAAACAT	TGTTAGAAAT	CGATTTTACT	GTCCTGATCG	7620
ATTTGTCCTG	TTCTTATTTC	ATTTTACTAT	AAATCCATCA	GAAAGTCGTG	ATTTCTATTG	7680

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AAATGAGGAC	TTTCTTTT	TACTCATCTG	CTTTCAAAAA	GCATTCTAGT	CCATCTCCGA	7740
TTAACGATGG	ACTTTATCAC	CTCCTTCTCC	AGTCCTTGTA	TAACATCTTG	GAGTTGATTC	7800
ATGACATCTT	CCAAAGTTTA	AAAGGCTTTA	TTCTTAAATC	CACGTTTACG	AATCTCTTTC	7860
CACACTTGTT	CAATGGGGTT	CATCTCTGGT	GTGTATGGAG	GAATAAATGC	AAAGCCAATA	7920
TTAGTCGGAA	TCTTTAAGGT	ACTTGATTTA	TGCCATATAG	CATTGTCCAT	AACGAGTAAA	7980
AGATAATCAT	CTGGATAAGC	TTGTGAAATC	TCCTATTCCT	AAAGCCCCTT	TAGCGCATAA	8040
CTTTGGCTCA	GCTTCTATTA	TCGCTCACAC	CATCCATCAG	AAGTTTAATC	TGAAGGTACC	8100
CAATTATCGC	CAAGAAGAAG	ATTGGGCTAG	GATGGGTTTA	CCAATCACAC	GTAAGGAAAT	8160
CTCTAATTGG	CATATCAAGG	CGAGTCAATA	CTATTTGGAG	CCCCTTTATA	ACCTCTTGCG	8220
AGAGAGACTA	TTGACTCAGC	CCTTACTTCA	TGCGGATGAA	ACTTCTTATA	GGGTGCTAGA	8280
GAGTGATAGT	CAGCTGACTT	ACTATTGGAC	TTTTTTGTCA	GGTAAAGCAG	AGAAACAAGG	8340
GATTACGCTT	TACCACCATG	ATCAGTGTCT	AAGTGGTTCA	GTAGTACAAG	AATTCCTAGG	8400
AGATTATTCT	GGCTATGTGC	ATTGTGATAT	TTTGCGGCAG	TAAGTTAGGA	CTTTAGTCCT	8460
CTAGTTCTGC	CTATGCGATA	GCAGTCCAAG	GTTTAGGAGC	AAGGCGACGC	TAAGCTTGGT	8520
AAACTTCGAA	CCGCTCGTCT	GCTTATCGTC	AACTGGAAGA	AGCTGAACTT	GTTGGATGTT	8580
GGGCGCATGT	GAGAAGGAAG	TTTTTTGAAG	CGCCCCCCCA	AGCAAGCGGA	TAAATCATCC	8640
TTAGGAGCTA	AAGGTTTAGC	TTATTGTGAT	CAGTTATTTT	CCTTGGAAG	AGACTGGGAG	8700
GCTTTGCCAG	CTGATGAACG	ACTACAGAAA	CGTCAAGAAC	ATCTCCAGCC	CTTAATGGAA	8760
GACTTCTTTG	CTTAGTGCCG	GCGTCAGTCA	GTTTTAGCAG	GTTCAAACT	AGGAAGGGCA	8820
ATTGAATACA	GCCTCAAGTA	TGAAGAAACC	TTTAAGACCA	TTTTGAAAGA	CGGACATCTG	8880
GTCCTTTCCA	ATAATCTAGC	TGAACGCGCC	ATTAAATCAT	TGGTTATGGG	ACGGAGTAAA	8940
AGAGTCCAGT	GGACTCTTTT	AGCCTAAGCT	CAGTTTAAAA	AAGCGAGGGT	GGTTATTTTC	9000
TCAAAGTTTT	GAAGGAGCTA	AAGCAAGAGC	TATTATTATG	AGTTTGTGG	AAACAGCTAA	9060
ACGTCATCAA	TTAAATAGCG	AGAAATATCT	ATCCTATCTT	CTAGAATGTC	TTCCAAACGA	9120
GGAAACTCTC	GTAACAAAG	AGGTTTTAGA	GGCTTATTTA	CCATGGACTA	AAGTTGTACA	9180
AGAAAAGTGC	AAATAAGAAA	TCTCCAGATT	AGGAACTATC	CGTGAGTTCT	CCAGTCTGGA	9240
GATTTTTCAA	TAGACTTCCT	GCGAAACAAA	ATATGGTATA	ATAGTTCTAT	GAATGATGAA	9300
GCAAGTAAAC	AACTAACCAG	TGCACGATTT	AAGCGTCTTG	TTGGTGTTCA	ACGCACGACT	9360
TTTGAAGAGA	TGTTAGCTGT	ATTAAAAACA	GCTTATCAAC	TTAAACACGC	AAAAGGTGGA	9420
CGAAAACCTA	AATTAAGTCT	AGAAGACCTT	CTTATGGCCA	CTCTTCAATA	TGTGCGAGAA	9480

TATCGAACTT ATGAACAAAT TGCGGCTGTT TTTGGTATTC ACGAAAGCAA CTTAATCCGT	9540
CGGAGCCAAAT GGGTTGAAGT AACTCTTGTT CAAAGTGGTG TTACGATTTC AAGAACTCCT	9600
CTCAGTTCTG AGGACACGGT AATGATTGAT GCGACGGAAG TAAAAATCAA TCGCCCTAAA	9660
AAAAGAATTA GCGAATTATT CTGGTAAAAA GAAATTTTAC GCTATGAAGG CTCAAGCGAT	9720
TGTCACAAGT CAAGGGAGAA TTGTTTCTTT GGATATCACT GTGAACATTT GTCATGATAT	9780
GAAGTTGTTC AAAATGAGTC GCAGAAATAT CAGACAAGCT GGTAAAATCT TGGCTGACAG	9840
TGGTTATCAA GGGCTCATGA AGATATATCC TCAAGCACAA ACTTCACGTA AATCCAGCAA	9900
ACTCAAACCG CTAACAATTG AAGATAAAGT CTATAACCAT GCGCTATCTA AGGAGAGAAG	9960
CAAGGTTGAG AACATCTTTG CCAAAGTAAA AACGTTTAAA ATGATTTTCAA CAACCTATCG	10020
AAATCATCTA AACGCTTCGG ATTACGAATG AATTTGATTG CTGGTATTAT CAATCATGAA	10080
CTAGGATTCT ACTTTTGCAG GAAGTCTATT ATCAAAAATA CCATCAAGAT TATATAAGAT	10140
TGATACAGGA AAAGTTTAT TTGATGGTGT AAATATTAAT CAAATAGATA AAAAAATATT	10200
AAGTCAAAAT TTAGGAGTAG TTCCACAGGA TTCATTTTTA TTGAACCGAA GTATTCTTGA	10260
TAATATAACT TTAAAGCACG AAGTTACTTC ACAAAGATA GAGGAAGTTT GTAAAGCAGT	10320
TCAAATCTAT GATGAAATCA TGGCTATGCC GATGAAATTT AATACTATCA TCTCAGAGAT	10380
GGGGTCAAAAT ATTTACAGTG GGCAAAGCA ACGGATAGCA CTGGCACGTG CATTAATAAA	10440
TAATCCTAGT ATTGTAATTT TAGATGAAGC AACTAGTGCA TTAGACACTA TTAATGAGGA	10500
AAGAATAACA AAGTATATAC AAAGTCAGGG CTGTACTCAA ATAATGTAG CTCATAGATT	10560
GTCAACGATT AAGGATGCGG ATGTTATTTT TGTAATGAAA GGTGGTAAGA TTGTTGAGTC	10620
AGGAAATCAT AAGTACTTAA TGGATCTTGG TGGAGAGTAC TACAGCTTAT ATACAAAAG	10680
GAAATGAGGT GTAAAGAAAA TGAAGAAAGA AAATGAATAT GTAATTTTAA CAACAGCCTC	10740
ACTAGGGGTG ATGATTGGAA TAGTGTTTGC AATTTTTTTA GATTTTCCAG TTGAATATGG	10800
TATTTCTTTA GGCTTGTTGA ATGGAATAGT ATTGGGTTTCG CTGATTGTTT ACAAAAACAA	10860
TAAGAATTAA GCATAATTTT TTGCTGTAAA CTAAGGAGTA GAGATGGCTA TAGTTGAAAT	10920
TATAAATCTA AAAAAAGCT TTAAAGATAT TGAAGTTATT CATAACACTT AAATAATAGA	10980
GCAACTACAG TAGTAGCTTA AAAACATGAT TAAATCGCTA TTCTTAGGAG TAGCGGTTTT	11040
TCTTTTGTGTT TAATACTCTT TGAAAATCTC TTCAAACCAC GTCAGCTTTG CTTTACCGTA	11100
CTCAAGTACA GCCTGCGGCT CGCTTCCTAG TTTGCTCTTT GATTTTCATT GAGTATAAAA	11160
AGGGTCAAGT AAGTATAGTA AATTGAAATA AGATATGAAC AAATCGATTA GAAAAGTCAA	11220

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ATTAATTTCT	AGAAATATGT	TAGAAATTGG	TTTGAATTCC	GCAATCAATT	TGTTCAAGTTT	11280
TTATTTTCATT	TCATTTTATT	TAATTAGATT	TTCCAATTTT	TTAATTCAAG	CTAAAAATCC	11340
CCAATCGTAG	TGATTGAGGA	TTGAGTAAAT	AAATCTTAAA	CAATACCTTG	TGCAATCATG	11400
GCATTTGCTA	CATTTTCAA	GGCAGCAATG	TTAGCTCCTG	CAAGGTAGTC	TTTATCAAGA	11460
CCGTATGTTT	CTGAAGTCGT	TTTAGCTGTG	TTGAAGATGT	TTGTCATGAT	GTCTTTGAGA	11520
CGGCCATCAA	CTTCTTCACG	AGTCCATGAG	AGGCGAAGAC	TGTTTTGGCT	CATTTCAAGA	11580
GCTGAAACGG	CTACACCACC	AGCGTTGGCA	GCTTTTGCG	GTCCGTAGAA	GATACCATTT	11640
TCTTTGTAAA	CTTTGATGGC	ATCAAGGTCG	CTCGGCATGT	TGGCACCTTC	AGATACACAG	11700
ATAACGCCTT	GAGCAACCAA	ACGTTTAGCT	GCTTCACCGT	TGATTTCGTT	TTGAGTGGCA	11760
CATGGAAGAG	CAATGTCATA	GTTTCCAGCG	TAAGTCCATA	CAGTACCTTC	GTGGTAGGTT	11820
GCAGTTGCTT	TTTCAGCTGC	ATACTCAGTC	AAACGAGCAC	GACGTTTTTC	TTTAACATCA	11880
ACCAAAAGAT	CGAAGTCGAT	ACCATTTTCA	TCGATGACAT	AACCATTTGA	GTCAGAAACA	11940
GAAATAACAG	TTGCACCGAG	TTCAGTTGCT	TTTTGAAGAG	CATATTGAGC	AACGTTACCA	12000
GAACCTGAAA	TAACGACTTT	CTTACCAGCA	AAGCTGTTAC	CGTTAGCTTT	GAGCATTTCT	12060
TCAGTATAGT	AAACCAAACC	GTAACCAGTT	GCTTCTGGAC	GAATCAAGCT	ACCACCAAAT	12120
CCAAGAGGTT	TACCAGTCAA	GACACCAGCA	TCAAATTGGT	TAAGACGTTT	GTATTGACCG	12180
TAAAGGTAAC	CAATTTACAG	TCCACCAACA	CCGATATCAC	CAGCAGGTAC	GTCAAGTGAT	12240
GGTCCGATGT	GTTTTTGCAA	TTCAGTCATG	AAGCTTTGGC	AGAAGCGCAT	CACTTCAGCA	12300
TCTGTTTTAC	CTTTAGGATC	GAAGTCTGAT	CCACCTTTAC	CTCCACCGAT	AGGAAGTCCA	12360
GTCAAGACAT	TTTTTAAAGAT	TTGTTCAAAT	CCGAGGAATT	TCAAGATCCC	TTGGTTTACA	12420
GTTGGGTGGA	AACGAAGTCC	ACCTTTGTAT	GGTCCAACAG	CTGAGTTGAA	TTGAACACGG	12480
TAACCACGGT	TTACTTGAAT	TTTTCCATCA	CGGTCAACCC	AAGGAACACG	GAAAGAAACC	12540
ACGCGCTCAG	GCTCAGTAAT	ACGTGCCAAG	ATATTTTCTT	CGATATACTC	AGGGTGTTTT	12600
TCAAATACAG	GTTCTAAAGT	GTTGAAAAAT	TCTTCAACAG	CTTGAGGAA	TTCAGCCTCG	12660
TGCCGG						12666

(2) INFORMATION FOR SEQ ID NO: 138:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3083 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear



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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 138:

AGCAACTGTT GTGAACCAAT TCCGATAAAT TCCAAGAATT GGTTAATAGA GCCATTTTGA	60
CCAAAAATCC CGATAAAAGC ATAGGCTTTA AGGAGCAAAT TGATCCAGGT AGGAAGGATA	120
ATCAGCATGA GCCAGAGTTG ACGGTGTTTG AGACGGGTCA AAAAGAGGGC CGTCGGATAA	180
CTGATAAGCA GTGCCACAAA GGTCACAATG CCTGCATAAA GCACTGAGTT GAAACTCATT	240
TTAAGATAGG TCAAGTTTGG TGACGCAAAG TAAGATTTGT AATTTTCTAA ACTGAACTGG	300
CCTTCGATGT TGAAAAAGGA TTGACCGAAA ATCAAGACCA AGGGTGCCAA TACAAAGAGC	360
GCAATCCAAA GCATGTAGGG TACTACAAAG AGTTTAGAGC TTGTTTTCTT CATCTCTTC	420
CTCCTCGATT GCATTGATCA AACCTGCTTC TTGCTCTTCG ATTTCTACGT ACTCCTCAAT	480
ACGAGCATCG AACTCTTCTT CGGTTTCATT GAGACGCATG ATGTGGATGT CTTCTGGTTC	540
AAAGTCCAGA CCGATTTCCT CACCCACGAT AGCCTTACGG GTTGAGTGGA TCATCCATTC	600
ATTTCCAAGT TCGTCATAGG CGATAATTTC ATAATGAACT CCACGGAAAA GCTGGGTATC	660
GACCTTAACT TGGAGCTTGC CTTCTTCAGG AAGGGTAATG CGCAAGTCCT CTGGACGAAT	720
AACGACCTCA ACAGGTTTCAT TTGGCTTCAT CCCACCATCA ACCGCTTCAA AGCGTTTGCC	780
GTTAAATTCG ACCAAGTAGT CCTCAATCAT GGTACCTGGC AAGATGTTTG ACTCCCGAT	840
AAAGGTGGCA ACAAAGTGGT TGATTGGCTC ATCGTAGATG TCCACAGGGG TTCCAGACTG	900
GACAATCTCG CCATCATTCA TAACGAAAAT CCAGTCACTC ATGGCAAGAG CTTCTTCCTG	960
ATCGTGAGTG ACAAAGACAA AGGTAATGCC CAATCGTTGT TGTAATTCAC GCAATTCGTA	1020
CTGCATGTCT GTTCTCAATT TCAAGTCCAG CGCTGATAAA GGCTCGTCCA ACAAGACCAC	1080
ACGGGGTTGG TTGATGATAG CACGGGCGAT GGCCACACGC TGACGTTGTC CTCCAGAAAG	1140
TTTGCGGATG GAACGTTTTT CATAACCTTC CAACTGAACC ATCTTGAGAA CTTCCGCTAC	1200
ACGCTGCTCG ATTTCTTTCT TATCAATTTT ACGCAAGCGA AGTGGAAGG CAACATTTTC	1260
AAACACATTC ATATGTGGGA ACAAGGCATA GGATTGGAAG ACGGTATGTA CGTCGCGCTT	1320
GTTGGTTGGA ATATCATTGA TACGAACACC GTCTAGCATG ATATCTCCTG TCGTCGCATC	1380
CAGTAAACCT GCAATAATGT TTAGGATAGT TGATTTCCCC GAACCAGATG CACCTAGAAG	1440
GGTGTAGAAAT TTCCCTTCTT CCAACTCAAA GTTGATGTCT TTGAGAACCT TGGTGTGCT	1500
GTCTTCAAAA ACTTTAGAGA CGTTTTTGAA TTCGATAATT GGCTTTTTC AATTGGCATAA	1560
ATTCCTTCTT TTTCATAGAT TAACCGATCG GGGCTCTGTC AGGTCCCCAC TACCTCTTGC	1620
AGGGAGTAAA ACCACCTGCA TACATCTTCG CTACCGATAG GCTTTCACCC AAGATCCGGA	1680

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CTTCTCTTTC AAGCGTAATA CCTGAGTGTT CCTTGACTTTT TTCGATAACC GATTGGATCA	1740
AGTCCTCGTA GTCTTTGGCC GTTCCATCTG CGACATTGAT CATAAATCCT GCATGCTTTT	1800
CTGACACTTC TACGCCACCG ATACGATAGC CTTTCAAGCC AGCTTCTGAA ATTAAGTGAC	1860
CTGCAAAATG CCCGACTGGA CGCTTAAAGA CCGAGCCACA AGATGGGTAT TCCAAAGGTT	1920
GCTTGAGTTC ACGTAGGTGC GTCAAGCGGT CCATTTCTCTG CTTGATAACC TGATGGGTTC	1980
CTGGAGCTAG GGCAAATTTA ACTGACAAGA CAACTGCACC AGACTCCTGA ATAGCTGAAT	2040
GACGGTAACC AAAAGCCAAG TCTTTAGCAG ACAGGGTTTC GATTTCTCCA TCCTTGGTCA	2100
AGACCTTACA AGACTGCAAG ATGTGAGCAA TCTCGCCACC ATAGGCACCC GCATTCATAA	2160
AGACAGCACC GCCAACGCTT CCTGGAATAC CACAAGCAAA CTCAAAGCCA GTTAAACTAT	2220
GACGGAGGGC AATGCGAGTT GTTCAATCA AGTTAGCCCC AGCTTCTGCT TCAATGGTAT	2280
AGCCATCAAC AGAAACGTTA TTGAGCTTGT CACACAAGAT GACAAATCCA CGAATCCCAC	2340
CATCACGAAC GATGATATTG CTTCGATTGC CAAGAACCAT CCAAGGGATA TTTTCTTGGT	2400
TGGCAAATTT CACAACGCGA GCCAACTCAA AACGATTTTCG TGGAAAGACC AAATAATCAG	2460
CCTCTCCACC TACTTTTGTA TAACTATAGC TATGCAAGGG TTCCTTAAAA CGGATATCAA	2520
TTCTTCTTAA GATTTCAGC ATTTTCTCTC TTACAGACAT GTCACCTCTC CTTTACAAA	2580
ATTCATTCCA TTATACCATT TTTAGAGACA TTGACGACC ATAAAAATAC CTTGTTTGGG	2640
TTTTGCATAA GAAAAAGAGG TTCCCCCTT TTTATGATTT TTTACAAAAG ATTTCTTGG	2700
TTCCATAGGC GACCAGAACG AGCTCCAGTG CTAGAATCAC TTCAACCAAG ACTGGATTG	2760
TCAACCAGCC TACTTGAAA AGAGATGGTG CCAGATCAAA GAAGGCATGC AAGCCATAGG	2820
CTGCTAGGAG ATAAATCCAT TTCTTCTGGC GAACAGCTTG GTAAACCCAA ACTGTCAAAA	2880
GTAATTGGAA ACCAAGCGCC AAGATTGCT CAAAACCAAG CAAATAAATC TGCCAGACCG	2940
AAAGTGACTG AATGGTTTTT AACATATTTT CAGACAGTAA TTGCATAACC TGTGGATTC	3000
GAGTTTGAAC TGCCGAAAGA ACAATGTAAA GATTGAGTAA ACTAGTAAGG CCTAGAAAAA	3060
TCAACTCCAA GCCACCATGC CCC	3083

(2) INFORMATION FOR SEQ ID NO: 139:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 15363 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 139:

931

CCGGAGGATA TTGACCACCA CCAAAGCAG GGGGAAAATC GAAATCAACC AATAGTAGGC	60
TACTGCGACA CTGGTCAACT CACTATCTGA TGCTTGATAA TAATGCAAAA AAGCTTTTAA	120
TAAAGGTTTG TCTATCAGCT CTTTCCACCA CTTTTCATG TCATACTCCT TCACTTATAA	180
TCTTATACTC AATGAAAATC AAAGAGCAAA CTAGAAAGCT AGCCGCAAGC TGCTCAAAAC	240
ACTGTTTTGA GGTGTAGAT AAGACTGACG AAGTCGATCA CATACATACG GTAAGGCGAC	300
GCTGACGTGG TTTGAAGAGA TTTTCGAAGA GTATTAACTA ATTTCTTCTT ACCAATTCCA	360
CCATATCATA CGGTAGGGTA TTGGCAGCTT CCTTCAAGGA ATAGTTCTCT AAGTTATTTA	420
CATTTTGTGC TAATTTCTTG GCATACTTAG TCGTAATCAA TCGTTTTTCT TCGTATTCGA	480
AAATCAACTT GCGCTCCAGA TAATAGCCTC TCAGCATTTT ATCGATATTG TTGGGTTTGA	540
CACGATTGAT AACCCGTCG ACAAGGCAC CACTGCTGAT AATAGCTGTT TCTCGAAGAC	600
GAGACTCCTG CATAAACTA ATCAAAGAGC GTCTGTAGAC TCCCTTCAGG TTTTCCAAAC	660
TTTCAATAAT CATCTCTGTA TTGGCAAGAT AGAGCTCTGC AATTTGGTCA TAATCAAGAG	720
CACGGAGACG GCTTTGCTCC TTGTTCTTCC AGCTACGGAA GGTCTTCCG AGAGTAAAAA	780
CTTCAATGAAG GAGAAAACGT AAAATCCTCA AGGAAACAAG AAAATAATAG GTCAGTCTTG	840
AGGCAAGTTT ACGATTGATT CCTTGTTCTA TATTTTTCAG ATAACGTTGG TAAACTCGGT	900
AAGCACGATT GCTAATGTTT CCCTCTTCAT AGGCCTGTTT CAAACCATCA CTTTCAATAC	960
TAAGAATCAA GAGTTTCAAA GCAGCCAGT CTTCTTGATC ATCCTGGTTT TCTTGGCTTA	1020
AAATGAGATT TTCAATACGT CCATGATAAT TGTCAATAGC CGCATAGAGG GGAAGTTTAT	1080
TTCTGGTGTC TTCCAACCTT TTTTCCAACCT TAGCGTTAC TTCATTCAAA ATGGCGATAT	1140
GCATAAGATA ATCCTTGCTT TCTTCCTCTT CATCAGAAAG ATGAGGCAAG ACCAAGAGAC	1200
CTGTTAAAAA GCTAACAGC GTCACACCTG CAACAAGGAA AAGCAAAAGA GGATACTCCT	1260
GTTCTAGATT ACTTGGTATC AAGAGAATCG TAGCAATCGA CACCGTTCCC TTAACACCTG	1320
AAAAGGTCAA GAGAAACATG TCCTTCATAT ACTTATTTAG CTTTTTCTTG AGGCGTCGGG	1380
TTCTATAGGC ATAATAGCCA TAGATCATAA TAAAACGAAT GACAAAAAGG ACAAAGGTAA	1440
GGGCGATAAG AGATAGCAAT AAAAGTAGAG GATTATAGAT TGGATTGGTC AAGATAGGTT	1500
CTGCTATCAT TTCCAACCTC ATCCCTAAAA TCACAAAGAC AGAACCGTTG AGCATAAAGG	1560
TCACTGTATG CCAGACCGTC TCGGTCACCG TATCCACTTG GGCTTCGAGG AGCGTGATTT	1620
TCTTGAAGCG ACTTGCTTTT AAAATTCCAG CAACTACGAC GGCAATAATA CCTGAAACAT	1680
GAACTTCTTC TGCCAGAAAG AAGGTCACCT GAGGCAAACT CAATTCTAAT AAAAGTTCAC	1740

932					
TGGCAATATC	CGTTGCGCGC	ACACTTAGCA	AGAAGGTATG	GAGGAAGCGG	TTGGTCATGG 1800
CTGTTAAAAA	TCCAATTAAA	AAACCGCCTA	GGATTGAAAA	GATGAGCGAA	CTGCTAGCTT 1860
GCCCCAGAGA	AAAAGCTCCA	GTGTGCCAAG	CTGTCAAAGC	TACCTGAAAA	GCCACCAAAC 1920
CAGAAGCATC	ATTCAAGAGT	CCTTCGCCCT	TAAGAATATT	GGACACGCGC	TTAGGAAAGC 1980
TAAAACGCTC	CGAAAGAGAG	GCAAAGGCCA	CCAAGTCCGT	AGGACCAAGG	GCTGCCCCAA 2040
CAGCCAAGCA	AGCTGCCAAG	GGAAGGCTGA	ACCAAAGAAG	ATGGGCCAAG	CCACCCAAAC 2100
TCAGGGTCGA	GATAAAAAATC	ACTGGAAATA	TGAGATAAAC	AATGATTTCG	CAGTGTTTTA 2160
AAATAGCCGT	AACATCTGCT	TCTTCAGCCT	CTCGGAAAAG	CAAGGGTCCG	ATAACCACTG 2220
CCAAAAACAA	CTCCGTATTA	AGGTGAAAGT	CAGTATTGGG	TAAAAAGAGA	CCAATCACAA 2280
TTCCCAAAAG	AATTTGCACC	AAAGGGAGAG	GCAAAAAGGG	CAGGAGCTTA	TTGGTTGTAC 2340
TTGAGACAAT	CAAAACCAGT	AAAAATAGGA	TGAGGTAAAT	CAGTAATTCC	ACGCACGTCC 2400
TCCTTAATCT	TTTTTACAAC	AGGATTCAAA	TATCTCCTTC	TGCTCTTTGA	TTTTTTGGTC 2460
AATCTTGGA	CAGTCTTTGT	GCTCAATTTT	TCTCTGGCAC	CGTTCCATTT	CAAGAGCAAC 2520
TAATTTTTTC	TTGATTTTAA	GCATTTTTTT	GCTCATATGC	GCTTGGTCTA	GCACGCCCAT 2580
CGCTCGTTCG	TGGTGGGTTG	ATTCAACAAA	ATTCTGGCGC	ATGGCATCCA	GCTTTTCGTG 2640
TAAGTATTGT	TTATCCATGT	CTGTATCTCT	CTAATTTTTC	AATCATCACT	AAAAACGGCG 2700
GGTTGTGTAC	TTGGTTTAAA	GTTTCGGTAA	TGGCAGCTGT	GTAATCTTGT	TGGTTCAACT 2760
GGATCACAAA	ATCCAAGACA	GCATCTCTCT	CGAGATCGCC	TCCTTCATGA	CCATAGTAAA 2820
TCATAATAGC	AATTCGTCCA	CCTTTGACAA	GTAAGCCACA	TAGCTTTTCT	AATGCCTCAA 2880
TCGTTGTCTG	CGGTCGGGTG	ATGACAGACT	TATCAGCTGC	CGGCAAATAG	CCCAGATTAA 2940
AAATCCCTGC	CTTAGCTTTT	ATCACAAACT	GGTCCAGTGT	CTCATGGCCT	TGCAAGATTA 3000
ACTGGGCATT	TGTCAAGTCA	GCCTGATGCA	AACGCTCTTG	GGTCTTTTCC	AAGGCTTGCT 3060
TCTGAATATC	AAAGGCATAG	ACTTGCTTGG	CTAGCTTGGC	TAAAAAAAGC	GTGTCATGAC 3120
CATTTCCCAT	AGTCGCATCC	ACTACGACAT	CCTCTTTTGT	CACGACCTCA	GCCAAAAAAT 3180
CATGTGCCAT	CTCAAGTGGT	CTTTTCATTT	TCAAATCCT	GTTTTACAGC	CTTGCATCCT 3240
TGAACACTTC	CACGACGTCG	CATCTCCATC	TCAATGCTGT	TGAGGACTTC	CCATTTATTG 3300
AGGCTCCACA	TAGGACCAAG	CAGCATATCC	CTAGGCGCAT	CTCCTGTAAT	TCGATGGATG 3360
ACGATATGTT	TGGGAATAAT	TTCCAGTTGG	TCACAGATGA	CCCTGACATA	TTCGTCCTGA 3420
CTCATCAATT	GTAACGCCCC	CTCATGGTAA	TCTCGTTGCA	TACGAGTATT	TGTCATAAGA 3480
TGGAGCAAA	GCAGTTTAAT	CCCTTGAATA	TCGTTATCCG	TGACACAACG	GCGGACATTT 3540

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TCAACCATCA	TCTCATGGGT	TTCACCAGGC	AAACCATTGA	TCAAATGGGA	AACAATCTCA	3600
ATTTTGGAT	ACTTCTCAA	ACGCTTGACC	GTTTCCACCT	ACAATTCATA	AGAATGCGCA	3660
CGGTAAATCA	GGTCAGAGGT	TGCTTCATAA	GTAGTTTGCA	AGCCCAATTC	AACCGTCACA	3720
TGCATGCACT	CCGATAACTC	AGCCAAATAT	TCGATGGTTT	CGTCTGGTAA	ACAGTCTGGG	3780
CGCGTTCCAA	TATTGATTCC	TACCACACCT	GGCTCATTGA	TAGCCTGTTC	ATAACGCTCT	3840
CGAATAACTT	CCACCTTTTC	ATGGGTGTTG	GTAAATTTT	GAAAATAAAC	CAGATACTTC	3900
CGAACATCCG	GCCACTTGCG	GTGCATAAAG	TCAATTTCCT	TATAAAATTG	CTCACGGATA	3960
GGCGCATCCG	GTGCCACAAT	GGCATCTCCA	GAACCAGAAA	CCGTACAAAA	AGTACAGCCC	4020
CCATGAGCCA	CAGTCCCATC	ACGATTGGGA	CAATCAAATC	CCGCATCAAT	AGGGACTTTA	4080
AAAGTCTTTT	CTCCAAAGAG	TTTTCGATAA	TAATCATTCA	AGGTATTATA	AGATTTCATG	4140
ACTTTCATTA	TAACAAAAAT	CACCCACAAT	CTCAAAAGCC	TGACTTTCCT	ATAAATTCCT	4200
CTGTTTCTCG	TTTCCATTAG	CCTTTTTTTA	TGATACAATA	TGGGTATGAT	TTTAATGAAA	4260
TTAGCATCTA	TTTTATTATT	GATACTGACC	TTAGTCGTCT	GCATTATCCT	AACCAAACTT	4320
TTTAGATTAA	AAAACTAGG	ACGAAACTTT	GCGGATTTGG	CTTTTCCAGT	CTTGGTATTT	4380
GAGTATTACT	TGATTACAGC	TAAAACCTTT	ACCCATAATT	TCCTCCCTAG	ACTGGGGCTA	4440
GCCCTCTCGA	TCCTAGCCAT	TATTCTCGTC	TTTTTCTTCC	TTTTGAAAAA	ACGCAGCTTT	4500
TACTACCCTA	AATTTATCAA	ATTCTTCTGG	CGTGCAGGAT	TCTTATTAAC	CCTTATCATG	4560
TATATAGAAA	TGATTGTTGA	ATTGTTCTTA	ATGAAATAGT	CGAATCCCTA	AGCATTTTCT	4620
AGGGATTTTT	GCTTCTCTA	CAAAATAGTA	TAGACAATAA	CACTATACAA	TTTTATACAA	4680
AGAAAAGAGT	CTGGGACAAT	AGTCTCTTAT	ATCCAAAAAG	GCAACGGATT	TGCCGTTGCT	4740
TTTTTGGATG	GTTACGATAG	TCTTGGTAAA	ATAGAATTGC	CCAATAAACC	ATTTAGAAAG	4800
GCTATCCCAT	GCATATTCAC	TATAACACAA	ATCAAACAAC	TTTACCACTA	GAAATCAGTT	4860
CCTTCTTACC	ACAAGATCAT	CTCGTTTTTA	CTATTGAAAA	AGTGGTGAAT	ACCTTGAGAG	4920
AACGTCACCT	CTACACCTCC	TATCATGCCT	TTGATCGCCC	GTCTTATCAC	CCTAAAATGC	4980
TTGTATCTAC	TCTTCTATTT	GCCTATTCAC	AAGGGATTTT	CTCTGGTCGA	AAAATTGAAA	5040
AATGGAAGAG	TTAGTGACCT	TAGATTGTTT	GTTTATTGAC	AGAACTAAGA	TTGAAGCCAA	5100
TGCCAACAAG	TATAGTTTTG	TGTGGAAGAA	AACGACAGAG	AAATCTCCG	CCAACTTCA	5160
AGAACAGATA	CAGGTCTATT	TTCAAGAAGA	AATCACTCCC	CTTCTGATTA	AATATGCCAT	5220
GTTTGATAAG	AAACAAAAGA	GAGGGTATAA	AGAGTCAGCT	AAAACTTAG	CGAATTGGCA	5280

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CTATAATGAC	AAGGAGGATA	GCTACACACA	TCCTGATGGC	TGGTATTATC	GTTTTACCA	5340
TACCAAATAT	CAGAAAACAC	AGACAGACTT	TCAACAAGAA	ATCAAGGTTT	ACTACGCCGA	5400
CGAACCTGAA	TCAGCCCCTC	AAAAGGGACT	GTATATGAAC	GAACGCTATC	AAAACCTGAA	5460
AGCTAAAGAA	TGTCAGGCGC	TTTTATCTCC	CCAAGGTAGA	CAGATTTTCG	CTCAACGCAA	5520
GATTGATGTG	GAACCTGTCT	TTGGGCAGAT	AAAGGCTTCT	TTGGGTACAA	AGAGATGTAA	5580
TCTGAGAGGG	AAGCGTCAAG	TGAGAATTGA	CATGGGATTG	GTACTTATGG	CCAATAACCT	5640
CCTAAAATAT	AGTAAAATGA	AATAAGAACA	GGACAAATCG	ATAAGGACAA	TCAAATCGAT	5700
TTCTAACAAT	GTTTTAGAAG	TAAAAGTGTA	CTATTCTAGT	TTCAATCTAC	TATACAATAA	5760
GAGAATGACT	CAAAATTAAA	AAGCTAGAGT	TCCACAATTG	GAAATATCTA	GCTTTTTTGT	5820
GGTTGAGAAC	TATTTTGTCT	CAGGCTCTTT	ATCTTCTATT	TAGGACAAGA	GTTTTTCTTT	5880
GGTCTTTAAT	GATAAAGAAG	GTATCAAAAT	TTCTAGTCTT	CTTTTTTACC	TTTAGTAACT	5940
ACTAATCCTG	CACTCAAACC	TAGAAGAGTT	AAACCTGCTG	CTACTGCTGC	TTGGCTTGCC	6000
GCACTACCTG	TACTTGGTAA	CTGGGCTTTA	TTAGTTTGAC	TAGCTTCACT	TGAATCAATT	6060
GGTTTTGTAT	CTGCTTTTTC	TGACACTTGT	GGTTTTTTAG	CTTCTTGAGC	TACTGGTTTG	6120
GTTCCAACCA	AGACGATGCG	GTCTGTCCGA	ACTTCTACCA	CTTCACGGAG	TTTTTCTTCC	6180
TTACTTCCAT	CAGGATTAAT	CGCTGTAAAG	ATACGTCTTT	TTCCAACCTT	TCCTTCTTGT	6240
TCTACACGAG	TTTCACCTAG	ATACAGTGTT	GAATCTTTTT	TCTCAACTGT	CTTGTATGCC	6300
AAATCTTTTT	CAACAAATTC	GATTTTTTGA	AGATCTTCTT	GTACAGCAGC	AACTGTCTTC	6360
TCAGAAACTG	GTTTTTCCTT	AGTCAAGTGG	ATACGGTATT	CCTTGACTTG	TTTTCCACTT	6420
TCTGAAACGA	GGCGAACAAG	TACTGGAAG	CTATCTTCTC	CACTATCTAC	CACAGTTGAA	6480
GCTACTTGAT	TGTTTTCTTC	AACTGAGACT	TTTGCCGTT	GACCTTTATA	GGTAATTGTA	6540
TAGTCTTGAC	GATTTTCAGC	GAAATCAGCA	AGTTCTTTTC	CATCTACAAG	AATCTTTGAT	6600
TGAGTGCTTT	CTTGAGGCAA	TTCACTTGGT	GCAAGGAAGG	TCATCTCAAT	CATCGCAACA	6660
CCGCTCTTAT	CTGCTTTACG	CTCCATACGC	CATCTCATAG	CTTTGGCTTT	GATAGCTTTA	6720
AATGTACGT	TGATTTTCATC	ACCAGCTGCA	ATGTCTTTAT	CCGCACGATA	AGGAACAGCT	6780
TCCCAATTTT	CTGGATTGTT	GAATGGATGG	TCTGCGTCGT	AGGCTTGGTA	GTTTGAATAG	6840
TAGGTGGCA	CTTCAAATC	TGGACCGACA	TAGCGTTCTA	AAACGACTTT	AGATGGTGCA	6900
TCCGTACCAC	TATCTGCAAA	GAACGAACT	TTTCTTGTG	TAACAGTCCG	TTCTACAATC	6960
TTACCATTTT	CACGGAAAAT	CACACCCGCT	GATACTTCTG	GATTAGAAGA	TGGTGTGGT	7020
GACCAGTTTG	TCCAACGACG	ATTTTCTGAA	TGATCTCCGT	CATTGAGATA	GTCAACGCGG	7080

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TCATGAGAGT TTTTGTCAAT ATCATTGGTT GCTGAAGCAA AGGCCTGGTT ACTGTTTCA	7140
TCATAGTTAG GGTATCTGA AAGAGTCTCA CCAAGTTTGT CTGTCACTCG TACAGTGATC	7200
TCAGCAACAA GGTACTACC AAGGACACGG CCTCGAACAG TAAATGACC TGCTTTGTGTC	7260
AGATTTTCCG CTGGAAC TTC CATTC AACTGTCAGGT CTTTGTGTTT GTAGCCGTCT	7320
TTACCTGTGA AGTAACTGG AACCTTAGTC GGCAATTCAA GTGCTTGACC TACTTGTAGC	7380
AAGCGAGCTT GTTTAACCGC AGCAACTGGT TTATGAGAAA GTAAGCTCTT ATCCTTAGTG	7440
AAGTGCAGAC GGTATTCTCC TAAGATGTCG CCATTTTCAG CTTTCGCGAT GACACGAAC	7500
GGCTCACCTT CACGAACGCT TGGAACGACG GTAGCGAGAC CATTGTTGCT AACACTTGCT	7560
GTGACTGCCG GAACTTTTCC ATCTACAGAC TCAAGGTAGT AGTCTGTCAA ATCAGGGTTG	7620
AAGTTTGCTA AGTCTTTGCC GTCAACTTGG ATTCTTGTTT GTCCTTGCTT GGCTGCCGCA	7680
ACTTGTTTCG CAAAGATTG TACCTCTGTG ATAGACGTTT CACGCTTGTT ATCTGCTTTA	7740
ACCATGCGAA TACGAACAGC ATAGGTTTCA ACTTTATCAA AGCTAAAGTG GTTCATTTCT	7800
CCAGCCTTGA GTTGAGCAGG GGCTTTTAGA TTAGTAAC TG GTTCCAGTT GGCAGAATCA	7860
TTAAAGACAT GGTCTCAT T ACCAACAAAA CTAGGGTTT TAGGAGCTGT TGGGACAGTC	7920
TTACCAACAT AATACTCAAT CACATAAGAC TTCGGTACAC CAACTCCATG GTCTTCATGG	7980
AATCCGACAC TTAGATTATC AACGGAGCGT TTGCTCAAGA TACCTGAATC TCCAAACAGA	8040
ACACCGACTG AAGCTTCTGG ATTAGTACGA TTCCAGTTTG TCCAACGATT GGCTGGTTGG	8100
TTATGTAGG AAATGAGCTT GTCATTACA TTTGAAACTG GTCGCTTGG ATTTGAGTCT	8160
GAAGCAAAGG CAAGTGGCAA TTCTGAACCG GTCCATTGGT CAGAAATGTT TGCACCTTGC	8220
TCAGTTTGAG CAGATACGCG AACATGAAGT TTAGTTGTTA ATTGCGTACC TTCTAAGCGA	8280
CCATTAAC TG TAAAGACACC TTCCTTAGCG TATTGCTCTG GACGAATCGC ATCCCATGCA	8340
ACCTTAGCTG ATGAAACGTG ACCATTTGAA TCATATGTCC GAACACTTTC TGGTAATTGT	8400
GGTGCTTCTG CGATTGGAGT TGTCACACTG ACTTCTTCAA CTGAAACGAT ACCTTCTACA	8460
GAGACTTTTG CACGCGCTTC AAGGTCAATT CCTTCAACTT TACCTAGTAC TTCAAATGTT	8520
TGATAGGAGT CTAGTTTTTC TTTCGGAATA GCTTGCCAAG TGA TTTTATG AGTTT TAGGG	8580
AAACCTTTGT CATACTCAAC TGTTACTGTT GCTGGAAGAC TTGGTTCCTG ATGCAAATCT	8640
GTCACTACAT TTACAGGACG GATGGATTGC GCAATCTTCT TCTCAGTATT GGCTTGATA	8700
GTGAGTTCAA CTTGGTCTTT AGCTCCCTCA TATTCAGCGT TCAGAGTGAC TGCTCCTGGC	8760
TTATGCAACT CAAGCATTCC TTTACGAATT GCGACTTCCC CTTCACTACT TG TAGAGAAG	8820

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GTACTTTTAT CAGCTGGTAA TACAGCTTGC GTTCCATCTT GATAGTGAGC TCGAACCGAC	8880
AATTTGACAG TTTGGTCTTC TTTGAGACTG TCAGCTTTTT CCACTTGCAA GCTCAAGTGA	8940
GCAATTTTTG GCGCTTCTTC AAGGAATTGA ATTGCATAGG TTTGAAGAGG GCCACCATCT	9000
TTAGGCTGAA TAAAGATGCT CGCACGCATG CCGTTTGCTG CGCTTGCTTG AAGAACTGTA	9060
ACAGCTGCAT TTTTAGCACT TGCTGTGACT TCTGGCAACT TAGCTCCATA AGCAAGAGTG	9120
CGGTATTGCA TTGGTTTTTG ACTAGTAAGA CCTGTACTG CCTCACCACC AACCGTTACA	9180
GTGGTACTG CAGGTGCCGC AGGATTGCCT TCTTCTACCA CAAGGGTTGC ATGAATTGGT	9240
TGACCTTCTA AATAACCGGT CGCTTGAATA CGAGAACCTG GAATTGCTAA CTTAGCTTTA	9300
TCTTCTTCGG CAATCTCCCA CTGTGCACT TCATACTCTT CAACACTTCC ATCAATCAAA	9360
ACATAGGAAA CAGATTTGTC TACAGAATTC AAGTCAGTAT TTGGAGCAAT ACGTTTCACA	9420
ACTGGTAGCT CTGATTTAAG AGCAATCACT TCTACACGAG CTTCTACTTC TCGTCCGTCA	9480
GCCATACCTT TCACCGTTAC AATACCAGGC TTGCTCACAT CTACTGAAGA CCAGGTTACA	9540
GGACGTTCTG CACGGCTACC ATCACTGTAT ACAAACGGAA CAGTGGTAGG CATTTCAGGT	9600
GCCTCTCCAA TAATGGTCTG TACTTTTGGC ACTTCTGTCC CCAAACAGT CTTCTCTTGT	9660
CCTTCTTTCT TACCAGTAAA GACAGTGACT TGGTTCGATT TCAAGAGATC AGAGTGGGCA	9720
GTCAGGGTGA ATTTCCCTGC TTGTTCAGTT GATTTGACAA TGGCAACACC TTTACCATTA	9780
AATGCTTTAC GAATCCAAGA ACCATCTGCT TGCGCCTTAT AGCGTTCACG GCTGGCTTGT	9840
TCTCCGTAT CTACACCGAC CAGTTGACCT TGCCCATGCA ATTGGAAGCG AACCAGATTA	9900
TTAGCAGTTG GAACCACATT CCCCTGGCTG TCAACAATTT CATAGTAGAT GTAAGTCAAG	9960
TCTTTTCCAT CTGCTGCAAT CGCATGGTCT TCCTTAATAA GACGAACTGC CGCTGGCTTA	10020
CCAGCAGTCG TAATCTTATC TCGAGCAATT TCCTTGCCAG ATTCATCACG AGCAATTGCT	10080
TCCAAGGTAC CTGGTTGATA GGCAACTTTC CATTCAAGAT AAAGTTCATT AGCATTTGCA	10140
CCTTCTTGGT AAGTCCGCCC ATCGCTGGTT TGTTTTTTAT TGAAAGTCTT AAGACCAAGA	10200
GATTTTCCAT TCAAGAACAA TTCTACACTA GAAGCATTCG AATAAGCACG AACTGGAATC	10260
TTACCTTCTG AGTCAGCTAC TTTGGATGCT AATTCTTTGT TTTCCCAGTT CCAGTGAGGA	10320
AGAAGGTGTA CCATCGGTTT CTTCTTAACA GAAACCCATT GGCTTTGGTA GAGATAGAAG	10380
TCATGTTTTG GAATGCCGGC TGTATCTACG ATACCAAAGT AAGAGCTCTT AACAGGAGTT	10440
TGATTTTGGT TGTGCCATGG TGTAGGTTCA CCAATATAGT CCGTACCTGT CCAGATAAAC	10500
TGTCCAGCAT AGCCAGCGTT GTCACGGTCA AAAGTCCATG AAGCGGTGTC TGTTTTCCCC	10560
CAACCCACAC GATCATTTCC ATAATCTGAC TGTTTCATAAT TACGCTCAGG TCCATTGCTA	10620



937

TGTTTCAATT CACG TTCAGG GCGATAGTAA CTTCCACGTG TACGGGTAGC TGAAGATGTT	10680
TCTGATCCAT AAATCAACCA TTTTGGATGC TTAGCTCTAA GGGCTTTGTA ATTATCTTCA	10740
GAATAGTTAA ATCCAACAGC ATCGAGTTCA TCAGCAATTT TCTCATGCCC TCCGCTACCA	10800
TTACCGAAAC GGAATTTATC TGCTCCCATG GTAACATAGC GAGTCTTATC AACATCCTTG	10860
ATAACCTTAA CCAAACGTTT AACAGTTGCT AAAGAGTGGG CATCACCATT AGCTTCACCT	10920
ATTTCAATTAC CAATTGACCA CATGAAGATA GCAGGGTTGT TTTTGCCTCT TTCGACCATG	10980
GTACGTAGGT CAAAATCAGA CCATTTTTC A CTTTTCGAG CTTCTGGGTG AGTGGCATCT	11040
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TCTTCCTGAA CGAGTAAACC TAGTCTGCT GCGATTTGCA AGGTTTGCTC ACTAGCAGGG	11160
TTGTGGGTTG TACGGATGGA GTTAACTCCC ATCTCCTTCA TTTGTTTGAG ACGGCGATAT	11220
TCTGCTTTAT AGTTTTCTTC TGCTCCAAGC GCCCCATGGT CGTGGTGCAA GGATACTCCA	11280
TGGAATTTAA TACG TTCACC ATTCAAAGAG AAACCTTCAT TTGGAGTCCA GTGATAGTAA	11340
CGGTAACCAA ACAATCCTT CTTAGCATCA ACCAATTGAC CGTCACGGTA AACACGCGTA	11400
ATCAATTCGT ACAAGGCAGG TTTGTCATTT AAAACAGTCC AGAGTTTGG TCTTTCAACT	11460
TCTAAATCG CATCTAGGCT TGTGATTCA TGTGCTTTTA AGGTACGACT CGCTGTACGA	11520
ACTAAGCCTG TTACAGCATG ACCACCTCGT TCAACGATTT GATATTCGGC TACAAGTTCA	11580
TGGTCTTTGT CGTCCGTATT GACGATTTTG CTGGTCACAT GAGTTTCAAC CTTGCCATGT	11640
TGTTGTTCTT CAAGTTTGG TGTAAAATA GTTGTCCTAT TTTTCTCAAC ATGCACCTTA	11700
TCTGTCACCT GTAAAGTCAC ATCACGATAG ATACCACTTC CTGAATACCA ACGGCTACTT	11760
GGCTGTTTGT TGA CTGATG GACAGCAATC ACATCTCAC GACCATCTTT TTGAAGGTAT	11820
TTGGTGATAT CATATGAGAA CTGGTTATAA CCATTTGGAT AATGCCCCAC TAACTGACCA	11880
TTGACATAAA CTTGAGAATC CATGTAGACG CCATCAAAAG TAAGGCGAAC ATTTTCTTTG	11940
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CCACCTTCAT TTTGTGCAGG AGATTCATGA TCGAAATCGT TAAAGATACT CCAGTCATAC	12060
GGTAAATCTA ATTTTTCCTA CGTAGATACG TCTGCATCAG GTTTAATGGC TTCCTTAGAA	12120
TTTGCATTGA GTTTAAAGTA CCAATTTTGA TTAATAATCCA CTTTCCTGTC TTCAATCAT	12180
TGATTCACCT CTTCAATTTGT TACAGCTTTA GCATCTTCCT TGAGCGGTTT TTCTTGATTT	12240
GAAGCTTGTT ATTTCTATCCT TGGAGCTTTT TCTTCCGGTT TAGCAGACAC TTTTCTCTCT	12300
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TCACCTTGTT	CTGTCCTTTC	AACTATATTT	TTAGTTTCCA	AAGCTTTATC	AGCCTTTTCT	12420
TCTACTATCA	TTTTTTCCTC	TTTAGGTTTC	TCAGCAGTAT	GAGTAATAAG	TGTTTCATCC	12480
GCATAAACTA	CAGATTCTCC	AGCTATATTT	CCTCCTAATA	AAACTGCACA	AGTCCCAATC	12540
ATTACTGAGC	AAGCTCCAC	AGCAAACCTA	CGAATGCTAT	AAACTCTTTT	CCGATTCCAA	12600
TGGCCTTTCC	CCATAAAACC	CTCCTTATAT	TATATTTAGT	GCAGTTAGCT	ACTACCAAAG	12660
CCCAAGTGGT	ATACATGGTA	TGACAACCTA	GTTTCAACAA	TTTACACTCT	GCGAAAATCC	12720
AATTCAAAC	TCGTCAGTGT	CGCCTTGCCG	TAGATATGAT	TACTGACTTC	GTCAGTTTCA	12780
TCTACAACCT	CAAAACCATG	TTTTGAGCTG	ACTTCGTCAG	TTTCATCTAC	AACCTCAAAA	12840
CCATGTTTTG	AGCTGACTTC	GTCAGTTTCA	TCTACAACCT	CAAAACCATG	TTTTGAGCTG	12900
ACTTCGTCAG	TCTTATCTAC	AACCTCAAAA	CTGTGTTTTG	AGCAACCTGC	GGCTAGCTTC	12960
CTAGTTTGCT	CTTTGATTTT	CATTGAGTTT	ATATTTTATA	GGAGCGCATT	ATTTTGCTTT	13020
TGCTGCGTAC	TCTTCGTTAC	GTTTGATCAT	TTGTTTTCTG	TACCAAGCAA	AGATACCGAT	13080
ATAGAATACA	AGGAAGACTA	CTGCACCAAG	GATTGCTTTG	ATATCACCAG	TTGTAGTGTT	13140
ACCAATTGTC	CAACCAAGAA	GTTTTTCGAT	TGGTCCTTCA	AGAGTAGAGT	GAGTAATCAA	13200
TTGAGTTTGG	CTCACACCTT	CTGGGAAGGC	ACCTACACCT	TTAGCAAGTT	CTGTTGCAAA	13260
TGGTGCAATA	AGTGACCTG	AAAGAAGGAA	GAGTGGCAAC	AAGAGTGTTT	CGAAGATAAT	13320
CATACGGAGC	AATTTACCAC	GAGTTACAAC	CAAGAGAGCT	GGAGTAACAC	CCATAGCGAT	13380
GATACCTGCA	AGTGCAAGA	TACCATTTCC	AACTTTTGAA	AGAAGCACTG	CTTCAATCAA	13440
CATGATTGGT	GCAAGTACGT	TGGCACAAGC	CCAGATTTCA	GCACGACCAG	CGATGAATGG	13500
CCAGTCAAGA	CCGATATTGA	ATTTACGTCC	TTGAAGACGT	TTAGTAGCAA	CGTTTGTAAT	13560
ACCTTGATG	AGTGGTTCTA	CGGCTGCGAT	GAACCATGAA	CCGATAAGTG	AGAAGAGTTC	13620
CAAAGATACA	CCGGCAGTCA	AACCAAGAGA	CAACCATCCT	TTGATAACAA	GACGCCATTT	13680
ATCTGCATCT	GCAACACCTG	CAATTGGATG	TGGAGTTCCC	ATAATACCGA	TAACGATACC	13740
AAGGATGAAA	CCGATGAAGA	ATTTAGATCC	CCAGAAACCG	ATTTTCTTGT	TCAATTTAGC	13800
AGCATCAAAG	TCATATTTAT	CAAGGCCTGG	GAAGAATTTT	TCAAAAATCT	TATCCAAAAC	13860
CATGATAACT	GGGTTCATCA	TGTAGTTCAT	GTGAGTTGAT	GTCATTGGTG	ATGAACTTGG	13920
GGCGTTAAGA	AGGTCATCAA	ATGTAGGTTT	CATCAAGTCA	GAGTTGATAA	TTTTCAACAC	13980
ACCGACAAGG	ACGATAGCTG	CTGTAGCAAT	AAAGAGTGAA	ACCCCTTGAC	TCACACCATT	14040
GTTATCAGCA	TACCATTTAA	TCAAGAGACC	TGTGATAGAC	AAGTGCCAGA	TATCAAAGAT	14100
ATCGACATCA	AGTGTATCTG	TTTTCTTCAT	AGCTAGCATC	ACTATGTTGA	CAATCAACAT	14160

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GATGAGCAAG AAGTATAGTG TCCAAGCAGA ACCCCAAGTG ATTGTAGCAA GTGGTGCCCA	14220
ACCAACGTCG GTAATACTCA ATTGGATACC AGTGTTTTCA ACGAATTTTG CTAGTGATGC	14280
TGAGAAAGCA GTGTTTAGCA TACCGATGAT AGCACCGATA CCTGTAAGAG CGATGGCAAG	14340
TTTGATACCA CCTTCAAGCG CTTTGGAGAA TTTCACTCCA AAAAGTAAAG CCAATACTGT	14400
CAAAATGATT AACATGATGA CAGGTCCACC CATTCTAAG ATGGGATTGA AAACCTTTCC	14460
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ACAAATTAGA ATTAGCTTAA TCCGTGTTCT TTAATAGCTG CTTCAATATT GTCAAATACT	14580
GGAGCGCTCA TTGCTGGGAT ACGGAATAAG ATTGGCCCAG CTTGATAAC TGGGATACCT	14640
GGTTCAAAAC CAAGGTCTGT TGCAGCGATT GGTGTAAAGA TATCGTAACC TTTCATAAGG	14700
TCTTCGTTTA CATCTTTCAC CATGACTGCA TCACAGTGAA CATCATAACC ACGGTTTGAA	14760
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GGTTGCTTCA GCAATGTAAG TATAAAGGGC TTCTGGTTCA GAAATTTTGG ATAGGTCTTC	14940
AAGATGACCA TTTCTGTGA AGAAGTCCAT TAACTGAGCA AGAATGTTTCG TTTGACTTGA	15000
ACTTGAATTA TTAATGATAA AGAAGAGTAG GGATACTTCT ACTTCCTTAT CAGGAGCTAT	15060
CATATTGTGA AAAGTTATTG GTTTTCTTAA TCGAACAACC ACCACTTTCT CAGCTAGATT	15120
ATGAACAATA TCTGTGTGAG GAATCGCTAC ATTTGGCAAG TCCTTTCCTA GAAATTCAT	15180
ATCTAAACCA GTTGAAATG ACTTTTCACG CGTGATCAAG GCTTCACGAT AAGTTGGAGT	15240
GACAATTTCT CGTTCTTCCA ATAAAGTTGC AACCTGATCA AAGAGTTGTT CTTGACTATC	15300
CGCTTCTAAG CAAAACACAA GGTTTTGTG AAAGAAATAA TCTAATACCA TAAGTTTTTC	15360
CGG	15363

(2) INFORMATION FOR SEQ ID NO: 140:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 28882 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 140:

TAAGACTATT TAATAGTGGA GTGAAATAGG ATACGAACAA ATTGATTAGG AAAATCAAAT	60
GAATTTATAG AAATCTTTTA GCAGTTATGT TATCCTATTC TAGTTTCAAA ACGCTATAGA	120

940

AGCAGCATTG TGCTAGTCKA GATTCAGTTT ACTATACTAA AACGAGTAGC TTGAAATCAA	180
AAAACCCACC CTCACAGGCA GGTTTTATCT GTATTATTCA GCTAGATTAT GCTTTACCTT	240
CTGAACCGAA TACGTCGATA CGTTCTTCAA CCGATGCTTG GATAGCTTTT ACACCGTCAG	300
CCAAGAATTT ACGTGGGTCG AAGAGTTTTT TCTTGTCGTA TTCTGCTTCG TTTGCTTCGT	360
AGTCACGAGC AAATTTACGA GTTGCGTTAG CGAATGCGAT TTGGCATTCT GTGTAAACGT	420
TAACTTTGGC AACACCAAGT TTGATAGCTG CTTGGATTTG CTCATCAGGA ATACCTGATC	480
CACCGTGCAA TACGATTGGG AATCCTGGAA GAGCTTCTGT CAATTTTTCG AAGTGGTCAA	540
GGTCAAGACC TTCCCAGTTT ACTGGGTAAG GACCGTGGAT GTTACCGATA CCAGCTGCCA	600
AGAAGTCGAT ACCAGTTTCA ACCATTGCTT TAGCGTCTTC GATTGGAGCC AATTCACCTT	660
TACCGATGAT TCCATCTTCT TCACCACCGA TAGTACCAAC TTCAGCTTCT ACTGAGATAC	720
CTTTAGCGTG TGCTTTTTCA ACAACTTCTT TAGCCAATTT AAGGTTTTCT TCAACTGGAA	780
GGTGTGAACC GTCAAACATG ATTGAAGTAT AACCAACTTC GATACTCA AGTGCATCTT	840
CGTAGTGACC GTGGTCAAGG TGGATAGCTA CTGGTACAGT GATACCCATT GATTCAACAA	900
GGTTAGCGAT CAAGTTGCGA GCAACTTTGT AACCACCCAT GTATTTAGCA GCACCCATTG	960
AAGTTTGAT CAAAACTGGA GCTTTTTTAG CTTCTGCTGC GCGCAAGATA GCTTGAGTCC	1020
ACTCAAGGTT GTTTGTGTTA AATCCACCAA CTGCATAACC GTTGTCACGG GCTGCTTGGA	1080
CAAATTTTTC TGCTGAAACG ATTGCCATTT TATCAGGCCT CCTGTATATT TTTATGGGTC	1140
ATCCCATTTA CATTGTTCAT TTTATCACTT TTTGCCAAAA AAATCTAGTT TTTCCCGCAG	1200
TTTCGATTGA TTTTCTTCTA ACTCCATCTA TGTAACCCT TTCTCTCCCT AGTCTTGGAC	1260
GACTTTTGGA AAATCTATAA AGAAGGTAA ACTATTCTCC TCCATCTCGA AACGATAAGC	1320
TAATTTTTC TGTCTAATA GACTCTTAAC CACAAAGAGC CCCATACCAG ACCCCTTGAC	1380
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GCTATTTTCG ATAAAAAGTT CTCCTTCTCT TTCTCCAATT CGAACTAAGC CACCTGGAAC	1500
AGAGTGCTTA ATGGCATTGC TGATGAGATT AGAAAGAATC AACTTCATAA CTGATGGGTT	1560
TAGATAAGCC TGCTGATGGG TCAAACTATT GTCTATCTGG AGCTCTCTTT CCTTGGCTAG	1620
CAAGGCATAA TCTTTGACCA GATTTTGCCT CATCTGGAGG AGGTCAATTG TTTCCCTATC	1680
ATCTCGCAAT TCCTGCACAG AAGAGAGGGA AAGTATCTGC AGAACATGGT GATTGAGTTC	1740
ATCCACAATC CCCAAGGCAA CTCCCAGATA CTGGTCTCTA TCCTTATAAC GACCGATATT	1800
CTCTCTCATA TTTTCGATTA GGATTTTCAA ACTAGCCAGC GGTGTTTTCA ATTCATGAGA	1860
AGCTCCTCGT AGGAATTCTA CCTTCATCTT CTCCAGCTGG AGAATGGCTT CATTCTTTTC	1920

941

ATGCAAGTCC GCAATAACAG TCAAGAGATG CTGGTAGAGG CTATTGATTT GTTCCTTGAG	1980
ATTACCTATC TCATCCTTAG AATCCACGCG CAATCGCACT TGGGAATCCA GGTCCATCAT	2040
CCGACGGGTC ACCCGCTTGA TTTCCAAAAT CGGTGCAACA ATAGTCCGAG CGTAGATGTA	2100
GGCCACCAAA AGGGAATCA GAAAGGAGGC CAGCAAGGTA TAGGGAAGAA ACTGGAGACT	2160
GATTTGCTCC GCTTCCTTTT GTAAATCCAT GGAAGCTAGA AACTGGAGAA TCATAGTACC	2220
ACCGTCTTGC GTTTTCACCT CGCGCTCCTC AATAAAGAGA GAGGTTGTCT GGCGGTCTGT	2280
GTCCAGAGGA AGACTGTCCT TGACTTCTAA CTTGTCTCTG GTCATCTCAC CTTTGACGGT	2340
CCCCTTGATA TCACTAGTCT GGGAATACAA GTCTAACACT TGCTCGATAC TCTGCCTATC	2400
TTTCCCTTCT AGGGACTGGG CAATGGCTGT TGCCTTTTGA CCAATGGTTT CCTGACGATG	2460
ACTCAGATAA GTCGAAGGAA AAAGAAAATA AATAGCTAAA TGAAGGCAGA TAACCAGAAC	2520
ACTAAATATC GAGAAGGTAT AGATAAATAT CTTTGCAAAT AAACCTGTTT GTTTCATTTT	2580
CGCTCCAATT TATAACCAAC ATTGCGCACA GTGAGGATAC AATCCAAGTC TAGCTTTTTT	2640
CGCAATTCCT TGATATAAAC ATCAATAACA CGGTCAAAGG GAACCTCATC TGTCGCTTTC	2700
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CGCTTGAAAA TCGCGTCCAC CCTCACTTTT AAAAGGGAGA GGGAGAAAGG TTTTCCAGA	2940
TAGCCATCTG CCAAAGAGGC AAAGGCACTC ATCTTGATTT CCTCATCTTG AAAAGCTGTC	3000
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AGCTTGGGCA TCTGGATATC CAGTAAAACC AGGGCCACCT CATAGCTAGA AAATTGCTCC	3120
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CTCTCTATTT TTTATTTTTT TTAGAATAAA TACCTACCCT ATTTTCTATT ATAGTCTCTT	3300
GCTGGCCTTT TGTCTGCAAG CAACTGACCA CTAGATAAAA CGTTGTGAAA TTCTTTCTC	3360
ATAAATTCCTA TAACTTTAGT ATATTATATT TAAGCACTAA AGTACAAAGA AAGCAACTGA	3420
AAGCAATGAT TTTCACTACT GCTTTCGGAT TTATTTTGAA TTGTTAAATA GCCATTCTTA	3480
TCCACTATTC TTGAATAGAA ACACAAGATG CAATCTTTAT TCTAGACTCA TTTTTCAAA	3540
TTTATTCACC ATCCAGCAAG AGCTCTTTTG GTTGTTTTCT AAGGAGATTG CTTGAAGCAA	3600
GCGCCATAAC GAGAACCACT AGAACCAAGG CAAGGACAAA AATGATGATA AAGTCTGATG	3660

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TCTGAATGGA	AATGTCTAGG	CTCGACAAGG	TCTTGCTAAA	GCCATCTACT	TCTGCACCAC	3720
CACCAAGGTT	AGAGGCTTGA	GCCGCCTTAC	TAGCCTGTTT	GGCAACACCT	GAAGTCACAT	3780
TGGCAAGGAC	AGTGTTCCTA	ATTGCACGGG	CAGTGTAATT	AGCTAGGAAG	TAAGCAGAAA	3840
CTAGAGCAGG	GATAGCAATC	AAGATAGATT	CGGTGATGAA	TTGACCCAAG	ATACTTGCCCT	3900
GCTTGAGGCC	GATAGAGAGG	AGAATTCCCA	CTTCCTTGCG	ACGGGCGTTG	ATCCAAAGGC	3960
TGAGCAAGAG	GGCAAGGAGG	AGAACTGAGA	AGCTCAAGCT	ACCCCAAGAAG	AGGAGGTTGG	4020
CCATCTTGTA	CATACCAGAG	ATAGATTGCT	CAAGAGCTGG	GTAGTTAGAG	GAGCTCTTGA	4080
CGAGTGTGTA	GCTCTTCCAG	TTGATACCAC	TGATGCCATT	CAACTCTTTC	ATAACATCAT	4140
CCAAGTTCTT	GTCTGCTGTT	ACAAAGAAGG	TTGCGTCCCC	ATAAATGGCT	GTGTCTTCTG	4200
TGTATCCATA	AAGTTTTGCA	GCAGTGTGAA	TGTCTGTAAT	AGCTGTGTTT	TCGTAAAGTT	4260
CTTGTGAGTA	GGTTACTGCT	GACTTATTAT	GACCATCAAA	GAGTCCCTTG	ATTGTCACCT	4320
CAACTGTTTC	CTTGGCTCCT	TTTTCAATTAT	CTGCATCGTA	GATATTAGAG	TCCAGTTTAA	4380
CCTTGTCCCC	TACTTTCCAG	CCGTGTTTGG	CTGCCAAGTC	CTTGTGCAAG	AGGATTTTAT	4440
CCTTGTGTCG	GTTGGTTAAG	TGCTCTCCTT	CGACTAGTTT	ATAAGAACCA	GAGACAAACT	4500
TGTCTTCTTT	AGAGGAGTCA	TTGACACCTG	TAATCATCAA	GCTACTTCCA	AAACGCTTGG	4560
CACGATCAGC	AGTGAGATTC	TTCTTGGTTT	CTGGCGTTTC	AATCAGGTCA	TATCCAGTCA	4620
AATCTCCGAT	AGCGTTGATA	CGTTTGACAT	AAGACTCAAT	GGCCTTGTTT	TCGGTGATTT	4680
TTTGTATGTC	TTCACCCCTG	ATATTCCCAG	CACCACGAGG	CGTTCCTTGG	TTGACGCGAC	4740
GATTGATTTG	CATGGAGAAG	CTATTGGTGA	TATTTTTTAA	GGTCTCCTGA	GAAGCCTTGG	4800
CAGTAGCTCC	CTTGATTGAC	AAGCCGACCA	AACTCAAGCT	CGCCATGAGG	AGAATAATCA	4860
GGAAGATGAC	AATCGATTTG	AAAAACTTCC	TTGTAACATA	GGCAAATGCG	TTGTGTAACA	4920
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TAGTATTGCG	CGTTTCAGTC	AGTTTCTTAT	CCTTTAATTC	AAGTGTAATA	TCTGACGCTT	5040
GTGCCACTTC	TTTACTGTGA	GTTACGACAA	TCACACATTT	ACCTGTTTTTC	TGGGCAAGTG	5100
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CAGCTAGAAT	AACTGGAGCT	TCTGAGACCA	AACTGCGAGC	AATGGCAACA	CGTTGCTGTT	5220
GACCACCTGA	TAACTGGAGA	ACATTCCGCT	TGATCTGGCT	TTCATCCAAA	CCAAGCTCAA	5280
GAAGTGATTT	CTTGCTTGCC	TTTTTGTTGA	CCAATCGGAT	ATTTTCCAGC	GGAGAAAGAT	5340
AATCTATCAA	GTTATAATTT	TGAAAGACCA	GGGAAATATG	GTGCATGCGA	TGGTAAGAAT	5400
AGCCCTTCTT	ACGAATATCC	TCTCCTTGAA	AAAGGATAGA	ACCTTCAACA	GGACTATCTA	5460

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GACCAGCAAG TAGGGACAAG AGTGTGGATT TTCCTGCTCC TGACTCCCCA ATAATACTGT	5520
AAAATTTTCC GGGTTCAAAA TTATAATTGA TCTGATATAG GACTGCTTCA GCAGTATTCT	5580
TATAACGGTA GGTAAACATCT TGTAAATTGTA ATAAAGTCAT GATTTCCTCT TCTTAACATA	5640
TAGATGATAA AATTTCTTTC GGTGATTTTC TAAATAAGAA TAGGAAACAA AGGGCTACAG	5700
ATAAGCAACT AAGCAGAACT AGAAAAACAT AGGATTCTGC AAAAGATAAG ATGCTAGTTG	5760
ATAAACTGCT TGCTTTGGCT AGTGTATCTT GTAAGCTTGC CTGATCTCCA CTGCTAGTA	5820
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CAAGAGATAC CAAAACCTACC TCTAAACAGA ATTGTAGGAA GATCGAGCTC TTGCCTTTTC	5940
CAAGTGCAAG TAAAATCCCC ACTTCATAGA CCCGTTCTCT CAACCAGAGA GACAAAACCA	6000
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GGAAAGTTGC AACTGAGTCT TTGATTTGTT CAAAAGCCTT GTTTTCCTTT TCGACTTGGT	6120
AGCCTTGATT TTCCAAGGCC AAGTTTTCTA CCTGCTTCAT GAGTCCGTCC ATTTCTTTAG	6180
GATTTTCTAC ATAGAAGCGT GCTGCACTGA CTTGAGCTTC ACTATTGCCC AAAAGGGTTT	6240
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ATTTCTCTTG TTTTTTACCA GAAAAGATGC CGATAATCTC AACTCTACT GTTTGTCCTT	6360
TTCCAGATTC AGACTGACCA GCATCCAAGC CAATCTTGTC ATGAAGCGAA AGACCGTTCT	6420
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TTTTGTGGA CTTTCATCAGA GTCAAACAGG CTGAAATTCC GGCCAATAAG ACCAATAAAA	6840
TCAGAAATAA AATAAACTT CTCAGTCGCT TTCTGCTGAC ATAAGCCCAA GATCTTTGGA	6900
TTGGATTGAT TTGTACCTC CATATTTGTA AGACTATTAT AAAACCCAAA TATGAAATAT	6960
TTATGAAATA CGAAAAAAA ATATCGAGTA GGGGATAATC TCTAGCCCCT CTCACACCAC	7020
CATACGTGCC GTTCGGCATA CGGCGGTTCA ACTAACTTTT AACGCATGTC GTTCAAGGTA	7080
ATAATCCAAA CACGAAACCA GTCCACGTTT TTCAAGGACT GGTTTGTATA TAGCACGTTT	7140
AAGTACCGAC TTCTGAGCTA CTATAGTAGA TTGAACTAG AATAGTACAC CTCTACTTCT	7200

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AAAATATTGT	TAGAAATCGA	TTTGA CTGTC	CTGAACAATT	CGTCCTATTC	TTATTTTCATT	7260
TTACTATAAT	TGATAGTGGT	CGCCCCAGCC	AGATACCTTA	TCTGCTATCC	ATTTAGGAAC	7320
CCCTAACTTA	AGCAATCCCC	ATAATCGTCT	CGATTTCTTC	TTCCATTGCT	TCCAGATAAT	7380
CACTCGTAGG	CGAGTACGCA	AGCGCTCATC	TATGCTAGTG	ACTATACTTT	TCATATTTAT	7440
AATTCATTCC	TTTCGTTTCA	CTCAAGGCAC	AACACAGAAT	GAAAAAGTGT	TGTGATCTTT	7500
ATTTTGT TTT	ATAATAATAG	TGAGAAAACC	TATCACTACT	ACAAATCACG	GGGAGGTGAA	7560
TAAGTGAGTG	GTACAGCCAC	TACCTCGCAT	ATTTTGT CAC	ATCATTTAAC	GGTACATAAT	7620
AAGTTGTACC	ATCTGAATAA	GTTGCTACAA	TATCATTTGC	ATGCTCTCCT	TCACCTTTAG	7680
CAAAGGTTGG	AGCTCCTGCT	GGATGATTTT	TATTTGCCTC	TTTCAATTTT	TCAATAATGG	7740
CATTTTCTCT	GTATCTTTTA	TATTATCAGG	ATTTTTCACT	AAGATTTTGT	CTGGATATGT	7800
CGGTTTAGCA	GAAACAATTT	TTACTGTTAC	TTCTTTTTTA	TTCGAAGCAC	TTGTCCAGTT	7860
TCCAGCATTA	TCTTTAGCAT	TTAATTTTAC	AGTAATTCCT	GAAC TAGGAA	CTTCAGTAGC	7920
AGGTTGATTA	TCAACATTAT	TCAACTTTAA	TTTCAAAAGA	GCTGTTGCAT	CAGACGTTTT	7980
ATCAATCGTT	ATATATAATG	ATGAATTGTT	ATTATAAACA	GTTCCCTTCAT	ATTTAGCTGT	8040
TTGTGAGCTA	CTTGAAACAG	AACTGAAATT	ATACCCACTA	CCTCCCTGAT	TATCTTCAAT	8100
GCTTACGTCT	AAATGAACTT	CCCCACTATT	ATTTGGCTTA	GCAACA ACTG	TTATAGTAAA	8160
ATAACATAAA	ATTTGCATAA	ATAGATTAGG	GAAATCAAAG	CAGCTTCTAG	GAATGTTTTA	8220
GCAGTCACAG	TGTACTTTCC	CAGCATCAAG	CCACTATAAC	TCTGCACATA	AAAATGGAGA	8280
AGATGGCAAT	CCTCTTCTCC	AAATATTAAC	TTCTTTTACAA	ACCAACTATA	GTTGACAAAG	8340
AACCTAAAAAT	CAATTGATAA	CACAAGGTCA	GGTCGGTCAA	CTCTTTCAAC	TGAAGCCCTG	8400
TCAACTCTTC	CCATTTATCA	ATCTTGTATT	GGAGAGAATT	GCGGTGCAGA	TAGAGTTGCT	8460
GGGCTGTTTT	AGTGAGAACA	GCACTATTTT	CCCCAAAGAGA	GAGAATGATT	TCCTGAATCT	8520
GATCTTGATC	CAAAATCATC	TGGTGTAGAC	ATTCCTTGAT	TGGCTTCAAG	TCCACGAGTC	8580
TTTCTCCCAT	ACTCCAAAGA	TAGAGCTGAG	AAAAAGTATG	AACACCTTGG	TGACCCCTGAC	8640
GCCACCATGT	CTTGAACAAA	TCCCCTCAG	CTTTGATTAA	GTCTGATAGG	GCTTGATGTC	8700
CCGTCTGAGA	CCAAACCTGA	CCCAACATGA	TAGAAAGACG	AAGTCCAAAG	TCATACTCAA	8760
CCGCTTCAAT	CGTATCACTT	AAAATATCTC	TTACAGAAGT	GTATTTGTCT	TGTTGAAGCA	8820
CGAAAACATA	ATCCTGAGCT	CCGACCTGTA	GCACTGTCTG	ACAATT CGGA	AAAAGAGTCC	8880
GCATCATATC	TAGCCAAGAA	GCCAGATTTT	CCTGCTGAAA	ATAAGAAAGA	TGGCAATAAA	8940
CCAACTGAAT	CTTTTAAAAA	ACTTGCGGTG	CCTGTCCCTT	GCCCTCAACC	AGATAGGAAT	9000



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ACCAAGGGTT	TAGCGAACGA	GCCTGCTCCT	GCTGGGTCAA	AAGGGCAACC	AACTGCTTTT	9060
CACGCTCGCT	GAGCCCAGCT	TCCTCCAGCA	AAATCCACTG	CTGAGAAGCT	AAAGGGAGCG	9120
TGAGATAGCC	CTCTTTCTCT	ACTGGTTGGT	CTGAAATCCG	AGCCTCAGGA	AACCAGTCTT	9180
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CAATCAGGCG	AGCCTGAGCC	TTGGCTGACA	CGTACTTAGT	TGCTTCTTGA	TGGAGTTTAT	9480
TGGGTTTGGT	CATACCTTTG	AGGATGAGGT	GACGGCGAAT	ATACATAGAA	TACACCGCAT	9540
CCCCCTCAAA	GGCTAGCGCA	ATCCCGTTAA	TGAGATTGAC	ATCAATCACG	TGTCCACCTC	9600
ACTCCATCCT	TGGTATCAAG	GAGCTTAATT	CCTTGAGTAA	CCAATTGGTC	ACGGATTTGG	9660
TCTGCTGTCT	CAAAGTCACG	ATTGGCACGC	GCCTCTTGGC	GTTTTTGAAT	CAAGTCTTCA	9720
ATCTCTGCAT	CCAAAACCTC	CTCAACAAAG	ACAATTCCAA	AAATTTCTAA	CATATCTGCA	9780
AGAGCTTGCT	TGACACTTGC	ATCATAGTTC	CCTGAGTTGA	TCCATTTGGC	CATTTCAAAG	9840
ACAACCTGTG	TACCGTTGGC	AGCATTAATA	TCTTCATCCA	TAGCTGCTAC	AACTTATCTT	9900
TTAAAGTTTT	GTAACCTTTG	GGCATCCACA	TTTCCTGTAA	ATGGTTGTTC	GTAAGTATTC	9960
TTGAGATACT	TGAGATTGGT	CTCGGCATCG	CGAACTGCCT	TTTCCGTGAA	GTTGATAGGC	10020
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GCATCGTGTA	CCGTAATGAA	GTTACCCAAG	GACTTAGACA	TTTTGACATT	GTCGATATTG	10140
ACAAAGCCAT	TGTGCATCCA	GTAGTTAGCA	AAAGCCTTGC	CTGTTTTAGC	TTCAGACTGG	10200
GCAATTTTCAT	TGGTGTGGTG	TGGAAACTCT	AGGTGAGCTC	CACCACCGTG	GATATCAATG	10260
GTATCACCTA	AAATCTCTGT	CGACATGACT	GAACACTCAA	TATGCCAACC	CGGACGTCCA	10320
GGTCCCCAAG	GACTATCCCA	AGAAATCTCA	CCTGGTTTGG	AAGATTTCCA	TAGAGCAAAG	10380
TCTACAGGAT	TTTCCTTACG	AGCCGTTTCT	TCATCGGTAC	GACCTGAAGC	ACCTAGCTCC	10440
AAATCTTCCA	AGGTTTTATG	AGCCAATTTA	GCATAGTTGT	GGGATTTTTT	TACACGGAAA	10500
TAGACATCCC	CTTGACTCTC	ATAGGCAAAG	CCTTTCTCGA	TCAAGTCTTC	CACAAAACGG	10560
ATGATGTCTG	CCATAAACTC	CACTACACGC	GGATGGCGAG	TCGCAGGTTT	CACGCCCAAT	10620
GCCGTCACAT	CCTCACGAAA	GGCAGCGATG	TACTTATCCG	CAACCTCCTG	AGGCGTGATA	10680
CCTTCTTCCC	TGGCACGGTT	GATAATCTTA	TCATCCACAT	CTGTAAAATT	GGAAATATAG	10740

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GCAACCTTAT	ACCCACGGTA	CTCAAAATAG	CGACGAATCG	TATCAAAAGC	TACCGTCGAA	10800
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ATCATAAATC	ATAATCAGGA	AAGCTGAAAT	CCAAGAACAA	TTAGTTTCAT	CACTAAAAGT	10980
TCAAGTAAAT	TTCAGTCCGA	ATATCTCTAC	ACTTCGGAAT	CCCTTGCTCC	TTTCTCATTC	11040
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AAACCGTAGA	GGTAATTCTG	ATTAGTCGAT	AAATCAACCG	TACAAGTTCC	AATAACCTGA	11280
CCAGCTTTTA	ATAAAATATA	TAGTCGGCTT	TCTGGATCTT	TCAGAGCTTC	AGCGACATAT	11340
CTATCCACAA	CTTCTCTCGA	TTCATGTTCC	TCTGAAAATG	CCTGAAATTT	TAATTGACTA	11400
ATTTGATCCT	GATACGAAC	ATCTGCTAAC	AAAACCTCAA	GATGGGAAAC	ATTTGCTAAC	11460
GGATAAGGTC	TTCTATCCTT	ACCTAACCAA	GTTTCTGTCT	CTTCATCCTC	GATTAGTCCC	11520
CAGTTACTGG	CAAAGTCAGG	ATGATTCTCT	AAAAAATAC	GTTCTGTCTG	AAAAGTGACT	11580
GACCGAATGG	GGAAAGAAGC	TGTTTCTCTC	TCAAACTAG	TAAACAATGC	ACGCGCAATC	11640
CCCTGACGGC	GATGACCTGG	ATGAACCACT	ATCGTCACCT	CTACATCTTG	GTCATCTGCA	11700
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GCCCCGATAAC	TTGGGCATGG	GCTGATATGA	GGGCTCCCTT	TCGTACAGTC	GGATGGCGTT	12180
TGCCACAGTC	TTTCCCTGTT	CCCCGAGAG	TCACTCCGTG	ATAGAGAAGA	ACGCCTTTTT	12240
CAACAATCGC	TGTCTCTCCA	ATCACCAGAC	CAGAACCATG	GTCAATAAAA	ACACCTGAAT	12300
CAATCTGGGC	TCCTGGATGA	ATCTCAATCT	GAGTCCAAAA	GCGCCAAAAC	TGACTGTACA	12360
TACGAGCTAA	TAGTTTGAAG	CCGTGCTTCC	AGAGAAAATG	CGAGAGACGG	TGGGCCGCCA	12420
AGGCCTTGAC	ACCTGGATAA	GTCAGCAAAA	CCTCCAAAGT	GGTGCGGGCC	GCTGGATCAT	12480
TTTCTTTTAC	AATATCAATG	GTTCGCGCC	ACCACCCCAT	ACATTTCTCC	TTTCTTTATT	12540

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CTGAATCTTT	TGATGTTTCT	GTAAATTCTT	TCTTAGGTTT	GTAATCCTTT	TGATGACGTG	12600
GGCGGTGAGG	GCGCTCAGAC	TTTTCACCTT	TTTCATCATG	CTCAGGTTTT	GGCGGACGAG	12660
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TCTCAGAGAT	ATGAACAAGG	GCATCTGTCT	TATCAAAGAG	GTTAACAAAG	GCACCAAATT	12840
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GGATTTCAAA	ACGCGCTTTC	TTGGCTTGAG	CAAGAGCCTC	CGTCAAGATT	TCTGCAGTAA	13200
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TGAAGTCCAT	ATCTCCAAAG	TGATCTTCCA	AACCTTGGAT	ATCTGTCAAT	ACTGTGTAGT	13320
TATTTCCATC	TGAGATAAGC	CCCATAGCAA	TACCAGCTAC	TGGCGCCTTG	ATTGGCACAC	13380
CACCAGCCAT	AAGGGCAAGA	GTCCCGCAC	AGATAGAAGC	TTGAGATGAA	GAACCGTTTG	13440
ATTCCAAAAC	TCTTGCTACT	AGACGGATAG	CGTAGGGGAA	TTCTTCCAAG	CTTGGCAAGA	13500
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CGTAACGACC	TGTTTCCCTT	ACAGAATATT	GAGGGAAGTT	ATAGTGGTGC	ATAAAGCGTT	13620
TCTTGTAATC	TGGATCCAAA	CCATCAATGA	TTTGAGTTTC	TCCCATCGGA	GCCAAGGTCA	13680
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GGAAGTCAAC	AACCGCATCC	AAAGGACGGA	TTTCATCGAC	CTTACGACCA	TCAGGACGCA	13800
CCTTGCTCTC	TGTAATTAAA	CGTCGCACTT	CTGCGTGTTC	CATTTGTGCC	AAGATTTTCAG	13860
CCACATCACG	CATAATACGG	TCAAATTCTT	CGTGGTCCGC	ATATTTTCTT	TCGTAAACGG	13920
CAGTCACTTG	GTCTTTCACT	ACTTGAGTCG	CAGCTTCACG	GGCCAATTTC	TCTTCTACTT	13980
GAACTGCCTT	TTGGAGGTCA	CTGTTGTAGG	CTGCAATGAT	TTCAGCTTGC	AATTCAGCAT	14040
CCACGTGAAG	CAATTCCACT	TCTGCTTTTT	CTTTACCGAC	AGCAGCAACG	ATTTCTTCTT	14100
GGAAGGCAAT	CAATTCCTTG	ACAGCTTCGT	GCCCTTTAAG	GAGCGCTTCC	AACATGATTT	14160
CTTCTGACAA	TTCTTTGGCA	CCAGACTCTA	CCATGTTGAT	AGCGTGCTTG	GTCCAGCTA	14220
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ACAGTGCCAA	AGATGAACCA	AACATAGCAG	CCATTGGTGC	AGATGCATTT	TCATCATAAG 14400
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TCGGACGGTC	AATCAAACGC	GCTGTCAAGG	TCGCATCTGT	TGAAGGACGT	CCTTCACGTT 14520
TCATAAAAGCC	ACCAGGAAAC	TTCCCAGCCG	CATACATTTT	TTCTTCGTAG	TTGACTTGGA 14580
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ACTCACCGTA	ACGTACGACA	ACAGATCCAT	TTGCTTGCTT	AGCAACCTGA	CCAGTCTCTA 14700
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CAAAGTAAAA	ATAGGAAACT	GACGAAGTCT	TCGATGAAGA	CAAGACAGTT	TATCTTTTTC 14880
ACACAGCTTT	TCGGCCGTGT	TCAATTACAC	AAGATATTTT	GGACGGTTCG	GCTTGCCGAA 14940
CATTTCTGTA	GAAAAATAGG	AAGGTGACGT	CGCACTCGAC	GAGTGCTAGG	AAGCTTATCT 15000
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CTCGTCAAA	AACATCGATT	TGACTCACTC	GTGTCGTAA	ATCTTACAGT	TTAAATGCAT 15300
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TGTATTTTGC	TGTATCAGCA	TTATTCATCG	TATAGAGATG	CACACCGGCA	ACATCCTGAG 15540
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AAGCTTTCAA	GAGTCGGAGA	GCCTGATTTT	GATTTCAGAA	TGGCATAATT	CCTGCATGAA 15720
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CAAAGAAGAG	CTGAGTTACG	AGGCTCGAAC	AGCCTGCATC	CACCTTCTTC	TTAAGATTTT 15840
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TATCAAAGTG	AGGGGTTTGT	TCCTTGATAA	ACTCAATCAA	GTCGGTTGCA	TAGCGGAAAT 15960
CCTTTTGTGG	TTCCACGTCT	GGAATAATAT	CCCCACGAAG	AGCCAAGATT	TTCTGCACCC 16020
CAACTTTGTC	CAAGTCAGCA	ATAGTTTCAG	CAACCTTGTC	CTTAGTTAGA	TAAATAGCTG 16080

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GCAAGTGGGC	AATGGTCGGA	ATCGCCAAAT	CATTTTGGAT	AAAGTCAGCC	AAACGAACCG	16140
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GGAACACTTC	AAATGAGAGT	GACGGTGTTT	GGCGTGACAT	ATGTAATAAC	CTTTTCTAGT	16320
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TATCTGTAAA	TTCTGAGTAA	CACATGTGAG	TGTGGATTTG	TGTGTCTGGC	GCTACTGTTG	16740
AGTGTACCAA	GCGGAAGGCA	GGAATAGCCC	AGTCAAGGTA	GTCTTCGTAC	CAGTCGCTAC	16800
GGCGGAGTGG	CAATTTTTC	CGAAGAGCAG	CCTCGTCGAT	TTGGATGATT	TTCACACCAG	16860
CAGCTTCAAG	GTCAAGTACT	TCATCCTTGA	TAGCAAGGGC	GATTTGGAGA	GTTGAATCCT	16920
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AACCTTGACC	ATTTCCGATA	GCATCCAAGT	CACGGATTTC	ATCCAATTTT	TCAACTGCAA	17580
AGGCAAAGTG	GTTCAAGAGT	GCTGGTTCAA	ATTCTTCATT	AGCAGTTGTA	AATGGCACAT	17640
GAAGAAGTGA	GCAAGAGCTT	GTCAAAACGA	TGTTTTTCAGC	TGGAATTTGC	TCAAGAACAG	17700
CCAAGCTCTT	TTCGTAGTTG	TTGCGCCAGA	TGTTTTTACC	ATTGACAATA	CCTACATAGA	17760
GAGTCTTGTC	AGCTGGGAAG	CCACCTTTAA	CGAGTTCAAG	AGTTTTCTTA	CCTTCAACAA	17820

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CACCGAAATA	AGTTTGAAGC	AAGACTTCAA	GACCTTTTTT	GTCAGCCAAG	AGTTTGTTGT	17940
AAAGGTTCAA	GAAGAGAGCT	TTTTCTTCAG	CTGTCAAGTC	TTTTACAAGA	GCCGCTTCAT	18000
CCAATTGGAT	GCGAGTCGCA	CCAAGTTCAG	CCAATTTAGC	AAAAACTTCT	TGGTAAGCAG	18060
CCACTAAGCT	ATCTACGAAG	TCGTCTGCTT	TCACGCCTTC	TTCAAAGTCT	GACAATTGAA	18120
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AGCTATATTC	CAATTAGAAT	ACTAAAACAT	GTTATTAGTA	ATTCTTATAA	GTGACTATGA	18840
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GATTGCTAGT	GTCTTTCCTA	AACTGGCTAG	GACTTTTAAG	ACTGTATCCA	ACTGAGGACT	18960
AGTCTTTCCT	GTCTCCATCC	TAGCTATGAC	AGGCTGGCTT	ATTCCACTGA	CTTCTTCCAG	19020
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TTACTCCCAA	TAGCACTATT	CTTCATCACT	TAACCCTCTT	TTTTTTACGT	CTATGTATTT	19200
TTAAAAAAAT	GAGCGAATTA	TGATTCGATA	GATTGACCAG	TGGGTTTAAA	GTTGGTGCTA	19260
GCCTATTCTT	TAAGCGATTT	TCCTTTTCTA	GGATAAAGCA	GTTCTTGCTT	GCTTAACCCC	19320
AATTTTCCAC	GATGAATCCA	ATAGTAAATG	GTTGAAATTC	CCACGTTAAC	CCCTTTAGCC	19380
ATCACCATCA	TTTCAGGCGA	AAATTTTGGG	TTATGTTTTT	GGTTATGTAT	AGTGGAGAAT	19440
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GCCCTTTTCC	AAGACATTGT	CGGACTGTCC	CACGCTTGAT	TTCAGTGTGG	ATAGTTTGAG	19560
GAGCTTTTCC	AAGTAGAGAG	GCAATTTCTC	TATTTGATTT	TCCTTCTTTT	TTCCATCGTT	19620

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AATCTATGAG	GAAGACAAGA	AAAAGAATAT	CAATCAAGTA	AAGTCACAAA	GTCACATTAG	19800
CTCCGAGCAA	CCATTGCAAA	TTGAGGTACT	CACACAATGA	TTAAAACATT	TCTCTCTGCC	19860
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CTTAACATTT	GGCTATCTAC	CCAACCTATC	TTGGCACAGA	TTTATGCCTT	CCCCTTAGCT	19980
ACTGCAACTA	TGGCTGTAT	TTTAAGTTTC	TTATTTTTTT	TCCTATCTTT	TTACAAGAAA	20040
AATAAACAAA	TACGGTTTTA	CTCTGGCATT	TTGCTCTTAC	TATCGCTCAT	ATTACTATTA	20100
TTCGGAACAG	ATAAAACCCT	TTCTTCTGCA	TCAAATAAGA	CTAAAACCTT	AAAATTAGTA	20160
ACTTGGAACG	TCGCTAATCA	AATAGAAGCA	CAACATATTG	AGCGAATTTT	TAGCCATTTT	20220
GACGCCGATA	TGGCTATATT	CCCTGAACTA	GCTACCAATA	TCAGAGGTGA	GCAAGAAAAC	20280
CAGAGAATCA	AACTATTGTT	TCATCAAGTT	GGACTTTCTA	TGGCCAACTA	TGATATTTTC	20340
ACTTCTCCAC	CTACCAATAG	TGGAATAGCT	CCTGTGACTG	TGATTGTCAA	GAAAAGTTAT	20400
GGTTTCTATA	CAGAAGCTAA	AACTTTTCAT	ACAACACGGT	TCGGGACAAT	TGTATTACAT	20460
TCGAGAAAAA	AAAATATACC	AGATATCATT	GCCTTGCATA	CTGCGCCTCC	TCTGCCAGGT	20520
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CCAAAGGCTA	TTATTGCAGG	TGATTTTAAT	GCAACTATGC	GTCAATGGAGC	ACTTGCAAAA	20640
ATAAGCTCTC	ATAGGGACGC	ATTAAATGCA	CTGCCACCTT	TTGAAAGAGG	AACTTGGAAT	20700
AGCCAAAGTC	CAAAACTTTT	TAATGCAACA	ATAGATCATA	TTTTTATTGCC	TAAAAACCAC	20760
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ACAGAAATCA	CATTTTAATT	ATTTTATATA	AAATCACCCC	TCTAATGTTC	ATAAACTAGA	20880
GGGGGAATTT	GTATCCTACT	ATCGTTTAAC	GCACTTCTGC	ATTGACTTTT	TCTTCGAGAG	20940
ACGCTTGAT	TTTTTCCATA	TAGCGTGCGA	CTTCTTCGTC	CGTTAAGCTG	TCTTCTGGAT	21000
TTTGGAAGGT	CAAGCTATAA	GCCATTGACT	TCATACCAAG	TCCCAGTTTT	TCACCTGAGA	21060
AGACGTCAAA	GAGTTTGATA	TCTGTCAAAC	GTTTCACGCC	GGCAGCTTGG	ATAGCATCTA	21120
CAACTTCTTG	GTGAGTCACT	TCTGCCTTGA	GGAGAAGGGC	AACGTCACGG	CTGACTGCTG	21180
GGAATTTGGT	GATTTCCACA	AATGGAACAG	CAGGTTGGAG	CGCCCCCTCG	ATGGCTGAAA	21240
GGTTAAGCTC	AGCTACATAC	GTTTCTGGAA	TATCGTAAGC	CTTGGCAGTG	ACTGGATGCA	21300
CTTGGCCAAG	GAAACCAAGA	ACTTGGTCAC	CGAGTGAAAT	CACGGCTGTA	CGACCTGGAT	21360

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GGGCTTCAAG	GATTCCCTTA	GCATAGAAGA	AATCAACTGG	AACTGCTGCT	GTTTGGAAT	21480
CTTTTTCAGC	AACCAAGCCT	GTCAAGGCAA	AGGCAAAGCT	GTTGATCTCA	TTTGGAAAGTT	21540
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TATTCTTACG	AGCCACGTTG	TAGGCAACGG	TATCAAGGAT	CCCTGAAATC	ATATTTTGAC	21660
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CTGCTCCTTC	AGCAATGGTA	CGAACTTGAC	GGCGGAGTTT	TTGTATCACA	GTCAATTCAC	21840
CAGCTGTACC	ATCGTCTTTT	GGAAGGCTGG	TTGGCAAGCG	GTCATATCCA	TAGATACGAG	21900
CGATTTCTTC	AAAGAGATCA	GCTTCGATTG	TGATATCCCA	ACGACGACGT	GGTACGCTGA	21960
CTGTAAAGCT	GTCTGCATTT	CCAGAAAGAC	CAAAGCCAAG	ACGACGGAAG	ACGTCTTCTA	22020
CATCAGCATA	AGACAGCTCA	GTTCCGAGGA	CACGGTTAAC	ATCAGCAAGG	GTTGAAGAAA	22080
CTTCCACATC	AGAGGTATCA	AGCTCACCCG	CTGAAACGAT	ACCCTTACGC	ACCGTCGCGC	22140
CTGCAAGCTC	TGCAATCATG	CTAGCTGCCG	CATCAAGGGC	TTCATTAACT	GTTGCCACAT	22200
TAATTCCTTT	TTCAAAGCGA	GAAGATGACT	CAGAACGAAG	GTTCAGGCGA	CCACTTGTCT	22260
TACGGATAGA	TTTGCCATTA	AAAACAGCAG	CTTCAAGGAT	AACACGACTA	GATTTTTCAG	22320
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CACCATCACG	CGCTTCACGC	ACACGGATGT	CAGTCCCTTC	AAATGTGTCC	AAGTCAAAAG	22500
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TCACATTGTC	CAAGATACGA	GCTGCATAGT	AAGGCGCCTT	GTCTGTCTCA	ATGCTGACAG	22680
AAAGGGCATC	TGCCGCAGCT	TCATTAGTTT	CTGTTAGAGT	AAATTTTTTA	AAGTTGACTG	22740
CCTTGTCATA	GATGGCTGCC	ACTTCGTGAG	CCACTCCACA	CATAGAAAGG	GCATCTGCAC	22800
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CCTCACCTGG	CACGGCATCT	TCAGGCAAGA	TTTGGATGCC	ATCTGCGAAT	TCCTTAGGCA	22920
CAACTGAGTC	AGAAATTCCT	AATTCACCAA	GTGAACAGAT	CATTCCAAGT	GACTCCAAAC	22980
CACGGATTTT	TCCTTTTTTG	ATTTTGTAGT	TATCAGCGAT	ACGAGCTCCT	GGAAGAGCCA	23040
CCATGACCTT	GATCCCAGCA	CGCACATTTG	GGGCACCACA	AACGATCTGA	CGCTCTTCTT	23100
CTTCGCCAAC	GTTAATCTGA	CAAACATGGA	GGTGAGTCTC	TGGCACATCT	TCGCAAGACA	23160



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CGATCCCTGT AGTTGACATT TTTTCAGCCA ACTCTTGTA TGGCACATCA ATGTCCACCA	23280
ATTCTTTTAA CCATTTATAA GATACAAGCA TAATTTAGTT CTCCAGAATG ACAGTTGTCA	23340
CTCTAGTTCT TTTCTTTCC TATCATTTCA ATAGAAGAAT CCTCTTCTTA CCTTAATTTT	23400
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AGCCAAGCCC AAGAAAACT ATTTTTTGTA GCAAGTTCAA GTGCGAATTC AAACAGTTGC	23580
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TCCTCTAATF CTCTCTCAGT TTGAGCACTT CCCAGTTGA CTTTGAGAAA ACCAGCTATC	23700
TCCTCCTCAT GCATAATGAA ATAGGTTTCA GAGTCAGGAT TTCCCAACTC AGTTGACAAA	23760
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GCAAAGGTTT CACGAAAGGT TTGTTTGGCA ATTTTAGCCA ACACCTCAAC ATCTGCCATT	23880
TCTACTTTTC TAATCATTAT TTAAACTGTT CTGAGAAGCG GACATCTCCT TGGTAGAATC	23940
CACGGATATC GTTGATTCCA TAACGGAGCA TAGCTACAG CTCTTGTTCCA AGACCAAAGG	24000
CAAAGCCAGA GTATACAGTC GCATCGATAC CACTCATTTT AAGGACACGT GGGTGAACCA	24060
TACCGGCCCC CATAATTTG ATCCAACCTG TTTTCTTACA TACATTACAG CCTTCTCCAC	24120
CACACTTGAA GCAAGAAACA TCCACCTCAA CAGATGGCTC TGTGAATGGG AAGTAAGATG	24180
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CTTGAAGATC AGCCATAGAG ATATTTTTCC CAACTACCAA GCCTTCGATT TGGTGGAATT	24300
GGTGACTGTG GGTGCGATCG TCCGTATCGC GACGGAAGAC ACGCCCTGGC GAGATCATCT	24360
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AAACGTGACG GTGACCAGTC GCAACTGGAC GACCTGGAAG CGTCACATCT ATACTCTCGC	24660
TAGCCAGTTG AGCCGCGACT TTCTTTTCTT CCAAGAGCTT AGCTGTTTCT TCAAAAGCAG	24720
CAGTCAAGAC ATCAGGAGCT TCATTGACGT GTTTCCCGAT GATTGGACGC ATCTCAGCAG	24780
AAACATCTTT CATCCCTTG AGGATTTTCA TGAGCGAACC CTTTTTACCA AGGACAGAGA	24840
CACGCAAATC TTGCATCTCT TTTTCATTTT CAGCAGTAAT CTGCTTCAAG CTAGCCAGCG	24900

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TTTCTTCGCG	AAGCGCTTTT	AATTGTTCTT	CAATAGTTGA	CATATTTCCCT	CCATCAGTCT	24960
CTCGTAGATA	AAAAGAAAAC	CACATGCCAA	AAACTCCACT	CGGAGCGTTG	ACACGCGGTA	25020
CCATCCGTTT	TCATCTGACA	AGTCAGACCT	TCATTTCTAA	ATCCATGCGC	AAGTGAATTC	25080
ACCCAGCTTT	CATATAGAGA	GCTTGCAGTC	ACGGCTCTCC	TCCCTGATAT	ACTTCCCTTG	25140
GGCTACTAGT	CTTTCAGATT	CCTATTCAAT	TACTACTTAG	TTTATCAGAT	TTTTACCATT	25200
CTTGCAAGAC	CTATCTTACT	TCTGCTTGTT	AGCTTATTCT	TATCTAAATT	TATATAAACc	25260
TTATCTAAAT	TAACATTTTA	TAATTTTGT	AACAAAATTA	AATTAATTGA	CACTCCCCTA	25320
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ATGCCACCTT	AACCGTGATA	ATAGCTAGTC	ATCAATAAAA	AACTATTTGA	ATAAGGATTC	25440
TCCATTTGAT	TCAATCACTT	CTTTATACCA	AGTAAAGAC	ATTTTCTTAT	ATCGATTTAA	25500
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TGCAGTGGAC	ATAGAAACAC	AGTCAATACA	TCCCCAAGAC	GTATAGCCCA	TAATTTCAAC	25620
ACCATCCTGT	AGAGCTTCAG	CAACTTGCAA	TAAATGTTCT	TTCATATACT	GAATTCCTATA	25680
ATCATCTTGG	ACGGTTAAGT	TATTAAGTTC	ATCTTTTATT	AGTTGATCTT	TAGCACCTAA	25740
TCCATTTTCT	ACTATAAATA	ATGGGATTTG	ATAACGGTCA	TAATATCTAT	TTAAAATTAT	25800
ACGTAGTCCA	ATTGGATCAA	TTTGCCATCC	CCACTCTGAA	GACTCTAAAT	AAGGATTTAC	25860
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CACACTCATG	TAATAGCTAA	AGGATAAAAA	ATCTACGGTA	TAATTTTTTA	ATAACTCTGC	25980
ATCTTCAGCT	GCAAACTCTA	TGTTAATGTC	ATTTTCCTTA	AAATATCTTT	TTGCATAATT	26040
CGGATAATAA	CCTCTAACAT	GCACATCTGA	AAATAGATAA	TTTAGATTCT	CATACTCATG	26100
AGTCGCCCAT	ACATCTTTTG	GATTTGGAGT	CATTGGATAA	GCTGGCATAG	CTAATACCAT	26160
ACATCCCACC	TTAAACTCTG	AATTAATCTC	ACGAGCAATT	TTTGTAACCA	AACTTGAGGC	26220
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CCAATATTTA	ACTTTATCTT	TATACCTTTC	TAAAACGTGT	CGAGCAAATT	TTTCATAAAA	26400
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ACTCCATGCA	ATAGAAGTAC	GAAAAACATT	AAAGCCCATT	TCAGAAAACA	AGGATATATC	26640
TTCTTTATAT	TTATGATAAA	AATCAATACC	TATCAATTTT	AAGTTATCTT	CTGTAGGATT	26700

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TTCTGTTGCT TCTCCTAATC CACCTTTGGG TAACACATCC TGAAGTATA AGCCCTTACC	26760
ATCTTCATTA TATGCTCCCT CTAAGTGATT AGCTGCAACA GCTCCACCCC AAAGAAAATC	26820
ATCTGGAATA ATGGTCATAA CTTTCCTCCA TTATAATATT ACCAGTAATT CCTTAGAATG	26880
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AATCAACTGA TTTTGAATAA CTCTGTCTCC TTCTTCTACA TGACTAATAA AACCTTGACC	27060
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TTTATCCTGG ACATCGCTTA ACGGAATGAT TTCTCCTGAT ATAGGAGAAA ATATCATTTT	27300
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AGCAATAGA TATGCTTTAA CACTAGTAAG ACCTGCAAT AATCCCGCTA ATCCACCACC	27540
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ATTTTACTTC TTTAATGCAA CAGCCATCGA AGCAGCCCCT TGAGCTAAGT TTGACCCTAA	27720
CATTGCTGGA AGAATTAATA CGTCTGGAGT AGCAATAGAT GCCGCCAAAA AAATAGGTGC	27780
AAAAGCCCAA TGCAATCCAG TCATAACAAT AAATGGCATA ATAGCACCAA GAATAGCTAA	27840
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AATTACTCCA ATAGGTCCGA CTACAATAA GGCAATACAG CTTGATACTA ATAATACTAG	27960
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TGATGCAGAA TAAGCTAATA ACAGCGGTAA GAAATAATAT GGAGCATCCC CAAAAAATGT	28260
CAAAAAGCA ATAGTCTGAG AATCTGATTG CAATATACCA AGCATTTGTA AAATGATTAC	28320
CAAGACTTTC AACATACCTC CCCCTAACAT TGCTGGAATG ATTGGAGTCA TGGAACCAGC	28380
GATATACTCA ATGATTCTTT CTAAAAATAT CCCTTTGTGC CCTTGAACAA CTGAATCGGA	28440

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TTCAAAATTG CCAAGTTTAA CGAATCTTT ATAATAATTA GCTACATCAT TACCAAGTAT	28500
AATTTGATAT TGTCCATTCT TTTTCATAAT ACCTATTACA CCTGGTATCT TCTTCACATC	28560
ATCATCATTG ACTAAATTTT CATCTTTTAA TTCTAATCTT AAACGTGTTA CACAATGGGT	28620
AACTCTATTG ACATTTTTTT CACCTCCAAT TACATCGAGG ATTTTTTGTA CCGTATCTTT	28680
ATAACTCATG GTATTCTCCT ATTCTATTAA TCTAAATTTT TTGTTAAGCG ACGAATATGA	28740
GCCATCAAAT AAACTAATTC ACTAGAAGTC AGCAAATAAT TGTACTCCGT TTGTATAAAC	28800
ATTGCTACCT GTTCACCACA TTCATATTCT CTAGGATATT TATTTTTCAT TAATGCTAAC	28860
AAGTCTTCAT CATCATCGTC GG	28882

(2) INFORMATION FOR SEQ ID NO: 141:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12835 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 141:

GCCTATGTCT TTTTCAAAAA AATGCTTGAC TTGAGACGGG AACTAGGGAA GTCTAAAGGC	60
GGAAGGCATT GATTTATACT CTTGAAAAAT CTCCTCAAAC CACGTCAACG TCGCCTTGGA	120
TTATATATGT AACTGACTTC GTCGATGCTT ATCTACAACC TCAAAGCAGT GCTTTGAGCA	180
ACTTGCGGCT AGTTTCCTAG TTTGCTCTTT GATTTTCATT GAGTATTATA TTACTTTCTA	240
TTTGTAGGAG GTGGCTTATG AAGATTCCTC TCTTAACTTT TGCAAGGCAT AAATTTGTTT	300
ATGTCCTGCT TACTTTGCTT TTTCTTGCTT TGGTTTATCG TGATGTTTTG ATGACTTATT	360
TCTTTTTTGA TATTCATGCG CCCGATCTAG CTAAATTCGA TGGACAAGCA ATTAAAAATG	420
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CATTTATTAT TCCAATCATC ATTGTTTTGC TAGGTTTTCA ATATATTGAG CTGAAAAATA	540
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TTATAACCTA TTTCTTTGGG ACTTTTTCTC CTCTTGATG GAATTCTCTA TTTTCTGATG	720
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TCCTACTAAT CGGTATTTTC ATCAATGCAA TCTATTTTTT ACAAATAGTT GATTATGTGG	840
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TTTATAGTGC CTTCCTTAC TATATGGTTC CTATGACGAG TTTGATGCAA GCTAGCTATG	960

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GGGATGTAAG TTTGATGAAA CTCTTTACTC CTTATATCCT TTATATTGTC CCTTACATGG	1020
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CTACTGTCTT ATCTGATAGC ACTGATTAGT GCGGGCGCTG GTTTTTCCTT TTTTCTCTAT	1560
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TGGAGAATCA CTGGATTCAT TGCTTTACGA AGCATTTGCG GTTGTCCTGTG AAGGTGCCAA	3000
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AAACATGGTA CAACGTCCGC TTAACATATGC CTTGGTCGAT GAGGTTGACT CTATCTTGAT	3420
TGACGAGGCT CGTACACCTT TGATTGTATC AGGTGCCAAT GCGGTTGAAA CCAGTCAGTT	3480
GTATCACATG GCAGACCACT ATGTAAATC TTTGAACAAA GATGACTACA TCATCGATGT	3540
GCACTCTAAG ACTATTGGTT TGTCTGATTC AGGGATTGAC AGGGCTGAAA GCTACTTCAA	3600
ACTTGAAAAC CTCTATGACA TCGAAAACGT GGCTTTGACT CACTTTATCG ATAACGCCCT	3660
TCGTGCCAAC TACATCATGC TTCTCGATAT TGAATATGTG GTGAGCGAAG AGCAAGAAAT	3720
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TGTTCTCAC GAAGTCTTGA ATGCCAAAA CCACTATAGA GAAGCCCAA TCATCATGAA	4200
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CAAGCTTGGT GAAGGTGTTT GTGAACTTGG AGGACTTTGT GTTATTGGTA CAGAACGTCA	4320
TGAAAGTCCG CGTATCGATA ACCAGCTTCG TGGACGTTCA GGTCGTCAAG GAGATCCAGG	4380
TGAGTCACAA TTCTACCTAT CTCTGAAGA TGATTTGATG AAACGTTTGT GTTCTGAACG	4440
CTTGAAGGGA ATCTTTGAAC GCTTGAACAT GTCTGAAGAG GCCATTGAGT CTCGCATGTT	4500

GACGCGTCAG GTTGAAGCAG CTCAGAAACG TGTGGAAGGA AATAACTACG ATACCCGTAA	4560
ACAAGTCCTT CAATACGATG ATGTCATGCG TGAACAACGT GAGATTATCT ATGCTCAACG	4620
TTACGATGTC ATCACTGCAG ATCGTGACTT GGCACCTGAA ATTCAGTCTA TGATCAAACG	4680
CACGATTGAA CGTGTCGTTG ATGGTCATGC GCGTGCCAAA CAAGATGAAA AACTAGAGGC	4740
AATTTTGAAC TTTGCTAAGT ACAACTTGCT TCCTGAAGAT TCTATTACGA TGGAAGACTT	4800
GTCAGGCTTG TCTGATAAGG CCATCAAGGA AGAGCTTTTC CAACGTTCCCT TGAAGGTTTA	4860
CGATAGTCAG GTTTCAAAAC TACGCGATGA AGAAGCAGTT AAAGAATTCC AAAAAGTTTT	4920
GATTCTACGA GTGGTGGATA ACAAGTGGAC AGATCATATC GATGCCCTTG ATCAATTGCG	4980
TAACGCGGTT GGAATTCGTG GCTATGCTCA GAACAACCTT GTTGTGAGT ATCAGGCAGA	5040
AGGTTTCCGT ATGTTTAATG ATATGATTGG TTCGATTGAG TTTGATGTGA CACGCTTGAT	5100
GATGAAAGCA CAAATTCATG AACAAGAAAG ACCACAGGCA GAACGTCATA TCAGTACAAC	5160
AGCGACTCGC AATATCGCTG CTCACCAAGC AAGTATGCCA GAAGATTTGG ATTTGAGCCA	5220
GATTGGACGC AATGAACCTT GCCCATGTGG TTCTGGTAAG AAATTTAAAA ACTGTCACGG	5280
TAAAAGACAA TAAATGAGA TAGTTTAGAG GCGGATATCT TGTGAAAAGT AAATTTTAC	5340
TGGGTATCCG TTTGCTTTAT AAGGAGATGA GTTATGGTAT TTACAGCAA AAGCTCTAAA	5400
ATAAATATAG AAGAAGTTCG TGCTTGTCA AAATTAGAAG GTCAGGCTTT GGAGAGGAAA	5460
TCACAGCGAG ATCAAGAGCT AGAAGCCATT ATACGTGGAG AAGACCAGCG AATTCTCTTG	5520
GTAATCGGGC CATGCTCATC TGACAACGAA GAAGCTGTCC TTGAATACGC TAAGCGTTTG	5580
GCAGTCCTAC AAGAAGAAGT GGCAGATCGT ATCTTTATGG TTATGCGTGT TTATACTGCC	5640
AAACCCCGTA CCAACGGAGA TGCTATAAG GGCTTGATTC ACCAGCCTAA CGCGACAGAA	5700
GCGCCTAGTC TTATCAATGG AATCAAAGCC GTTCGCCATC TTCACTATCG TGTCATCACA	5760
GAAACAGGGA TGACAACTGC TGATGAAATG CTTTATCCTG AAAACCTTCC GCTTGACAT	5820
GATTTGATTT CTTACATGGC AGTTGGTGCC CGTTCAGTTG AAGACCAGCA ACACCGCTTT	5880
GTGGCAAGTG GGGCAGGATT TTCTACTGGT TTTAAAAATC CAACCTCTGG AAATCTCAAT	5940
GTCATGTTTA ATGGGATTTA TGCTGCTCAA AACAAACAAA GTTTCCTTTT CTTAGGAAAA	6000
GAAGTAGAAA CAACTGGGAA CCCGCTTTCA CACGCTATTC TTCGTGGTGC TCTTAATGAG	6060
TATGGAAAAA ATATTCCCAA CTACTATTAT GACAATTTAA TTGATACCAT TGCCCAGTAT	6120
GAGAAAATGG GCTTGAAAA TCCTTTTATC ATCATTGATA CCAATCATGA CAATTCTGGT	6180
AAGCAGTATA TTGAACAGAT CCGAATTGTC CGCCAGACCT TGATTAACCG TGCTTGGAAT	6240

960

GAAAAAATTA	AGCAGTTCGT	TCGTGGTTTT	ATGATTGAGT	CTTATCTGGA	AGATGGTCGA	6300
CAAAATGAGC	CAGAAGTATT	TGGTAAGTCT	ATCACAGACC	CTTGCCTGGG	TTGGGATAAC	6360
ACAGAAGCTC	TTGTCAGAGA	AATTACAAA	ACGTTAGGAG	AATAAGATGG	CATTTATTGA	6420
AAAAGGTCAA	GAAATCGATA	TGGAAGTCAT	CAAGGCTGAA	ACCCAATTGT	CTGCGGAAGC	6480
CTTGAGACTC	AAGGAAAGCC	GTGACAGGGA	ATTGGCAGAT	ATTATTTTCA	GGGAAGATGA	6540
CCGTATTCTC	TTGGTGATTG	GTCCCTGCTC	TTCTGATAAT	GAAGAGGCGG	TCTTGAATA	6600
TGCTCGCCGT	TTATCTGCCT	TGCAAAAGAA	GGTAGCGGAT	AAGATTTTCA	TGGTCATGCG	6660
CGTGTATACT	GCTAAGCCTC	GTACCAATGG	AGACGGCTAT	AAAGGATTAG	TTCACCAGCC	6720
AGATACTTCT	AAGGCTCCAA	GCCTGATTAA	TGGCTTGCAG	GCTGTGCGCC	AGTTGCACTA	6780
CCGCGTGATT	ACAGAGACTG	GTTTGACAAC	GGCAGATGAG	ATGCTTTATC	CGTCAAATCT	6840
GATCTTGGTG	GATGACTTGG	TCAGCTACCA	TGCCGTTGGA	GCTCGTTCTG	TGGAAGACCA	6900
AGAGCACCGC	TTTGTGGCTT	CTGGGATTGA	TGCACCAGTA	GGGATGAAAA	ATCCAACCTC	6960
AGGAAATTTG	GGTGTATGT	TTAACGCCAT	CTATGCTGCT	CAAAACAAGC	AAACCTTCCT	7020
TTATCATGGG	CAGGAAGTTG	AGACATCAGG	TAATCCTTTG	GCCCATGTTA	TCCTCCGTGG	7080
AGCAGTCAAC	GAGTATGGCA	ATTATATGCC	GAATTACTAC	TATGAAAATC	TACTCCAAGC	7140
CATTGAACGC	TATGAAACCA	TGGGACTTGA	AAATCCTTTT	ATCCTCATTG	ACACCAACCA	7200
TGATAACTCA	GGCAAGCAAT	ATATGGAGCA	GATTTCGAAT	GTTCGCCAGA	CCTTGCGAGAA	7260
TCGTGATTGG	AATGAGAAAA	TTAAAAAGAC	GGTTCGAGGA	TTTATGATTG	AATCTTACCT	7320
AGCAGATGGT	CGTCAAAACC	AACCAGAGAT	CTTTGGTTGC	TCTATTACTG	ACCCTTGCCCT	7380
AGGTGGGAA	AATACAGAGG	CCTTGGTAGA	AGAGATTTAT	GTTACCTTGA	CAAAATAAGT	7440
GAAAAGGATG	GAGTTGGGGA	ATCTCAACTC	CTTTTGATGA	GAATGATAGT	TGGACACGGA	7500
ATTGACATCG	AAGAAATGGC	TTCGATAGAA	AGCGCAGTTA	CACGACATGA	AGGATTTGCT	7560
AAGCGTGAC	TGACCGCTCA	GGAAATGGAG	CGCTTCACCA	GTCTCAAAGG	ACGCAGGCAA	7620
ATAGAATATT	TAGCTGGTCG	CTGGTCGGCT	AAGGAGGCCT	TTTCCAAGGC	TATGGGAACG	7680
GGCATTAGCA	AGCTCGGTTT	TCAGGATTTG	GAAGTCTTGA	ACAATGAACG	TGGGGCGCCT	7740
TATTTTAGTC	AGGCACCATT	TTCAGGAAAG	ATTTGGCTGT	CTATCAGCCA	CACCGATCAG	7800
TTTGTGACAG	CCAGTGTCAT	TTTGAGGAA	AATCATGAAA	GCTAGTCCAC	ATAGACCAAC	7860
CAAGGCTCTG	ATTCACTCTG	GAGCTATTCT	ACAAAATATT	CAGCAAATGG	GGGCTCATAT	7920
CCCTCAAGGA	ACGCTCAAGT	TGGCTGTGGT	TAAGGCCAAT	GCTTATGGTC	ATGGAGCTGT	7980
TGCCGTTGCC	AAGGCAATTC	AAGATGATGT	TGATGGCTTT	TGCGTTTCCA	ATATCGATGA	8040



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AGCCATTGAA CTCAGACAAG CTGGACTCAG CAAGCCAATC CTCATTTTAG GAGTTTCTGA	8100
AATCGAAGCT GTTGCTCTAG CTAAAGAATA TGAAGGAAATC TTTACCCACT TTGCTACTGC	8160
GTGGATTCAA GCACTCTTAG ATAAGGAAGT GGACCTAACT GGATTGACAG TCCACCTCAA	8220
GATTGATTCA GGGATGGGAC GGATTGGTTT TAGAGAGGCA AGTGAGGTTG AGCAGGCTCA	8280
AGATTTGCTC CAACAACACG GTGTTTGTGT TGAAGGAATC TTTACCCACT TTGCTACTGC	8340
TGATGAGGAA TCAGATGACT ATTTTAATGC CCAGTTAGAA CGGTTTAAAA CTATTTTAGC	8400
TAGTATGAAG GAAGTTCAG AGCTGGTTCA TGCTAGCAAT TCTGCAACGA CTCTTTGGCA	8460
TGTAGAGACT ATTTTCAATG CGGTTCGTAT GGGAGATGCC ATGTATGGCC TCAATCCAAG	8520
TGGAGCGGTC TTGGATTTGC CTTATGATTT GATACCGGCC TTGACCTTGG AGTCTGCTCT	8580
GGTTCATGTC AAGACAGTTC CAGCTGGAGC TTGCATGGGC TATGGAGCAA CTTATCAAGC	8640
GGATAGCGAG CAAGTCATCG CGACCGTGCC AATCGGGTAT GCAGATGGAT GGACAAGAGA	8700
CATGCAAAAT TTTCTGTCT TGCTAGATGG CCAAGCTTGC CCAATTGTCG GCAGGGTTTC	8760
GATGGACCAA ATCACTATTC GATTGCCTAA GCTTTATCCG CTAGGAACCA AGGTAACCTT	8820
GATTGGCTCC AATGGGGATA AGGAAATCAC TGCAACTCAG GTAGCGACCT ACCGCGTAAC	8880
CATTAACTAT GAGGTGGTTT GCCTCCTCAG CGACCGTATT CCGAGAGAAT ATTATTAGAA	8940
AAGAAAGGAG TGGAGCATGA ATCTACATCA ACCCTTGCAT GTCTTGCCTG GTGTGGGACC	9000
AAAGTCAGCA GAAAAATACG CCAAACTAGG AATTGAAAAC TTGCAAGATC TCTTGCTCTA	9060
CTTCTCTTTC CGTTATGAAG ACTTCAAAAC CAAGCAGGTG CTGGAGCTGG AAGACGGTGA	9120
GAAGGCAGTT CTTTCTGGTC AGGTAGTGAC TCCTGCTAGT GTCCAGTATT ATGGTTTCAA	9180
GCGCAATCGC CTGCGTTTTC GTCTCAAGCA GGGAGAGGTC GTTTTTCGCG TGAATTTCTT	9240
TAACCAGCCC TATCTGGCTG ATAAAATAGA GTTGGGAGCA ACCCTTGCTG TCTTTGGAAA	9300
ATGGGACCGC GCTAAGGCTA GTCTGACTGG GATGAAGGTT CTGGCTCAGG TAGAAGATGA	9360
CCTCCAGCCT GTCTATCGTC TGGCTCAGG AATCAGTCAG GCCAGTCTGG TCAAGGTCAT	9420
CAAGACGGCT TTTGATCAGG GACTGGACCT CTTGATAGAA GAAAATCTGC CCCAGTCTTT	9480
ACTAGACAAA TACAACTCA TGTCCTGTTG TCAGGCAGTC CGTGCTATGC ATTTTCCAAA	9540
GTATTTGGCA GAATACAAGC AGGCTCTTCG CCGTATAAAG TTTGAGGAAC TCTTTTATTT	9600
CCAAATGCAG CTGCAGATGC TCAAGTCTGA AAATAGAGTT CAGGGAAGTG GTCTGGTTCT	9660
GAATTGGTCT CAGGAAAAAG TGACAGCAGT TAAAGTAACT CTCCTTTTGG CCCTGACCCA	9720
AGCTCAGGAA AAGAGTTTGC AGGAAATTTT AACTGATATG AAGTCCGACC ACCACATGAA	9780

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TCGTCTCCTA	CAAGGGGATG	TGGGGAGTGG	AAAAACGGTA	GTCGCTGGCT	TGGCCATGTT 9840
TGCGGCAGTG	ACAGCAGGTT	ATCAGGCTGC	CCTAATGGTA	CCAACAGAAA	TCCTCGCAGA 9900
GCAACACTTT	GAGAGTTTAC	AGAACCTTTT	TCCCAATTG	AAACTGGCTC	TCTTGACAGG 9960
TTCCCTTGAAA	GCTGCAGAAA	AGAGAGAAGT	CTTGGAGACC	ATTGCCAAGG	GTGAGGCTGA 10020
TTTGATTATA	GGAACTCACG	CTCTGATACA	AGATGGGGTG	GAGTATGCTC	GTCTTGTTT 10080
GATTATTATC	GATGAGCAGC	ACCGTTTGG	TGTAGGGCAA	AGGCGTATTT	TACGGGAAAA 10140
AGGTGACAAT	CCAGATGTCC	TCATGATGAC	GGCGACTCCC	ATTCCACGGA	CGCTTGCCAT 10200
CACAGCCTTT	GGAGATATGG	ATGTTTCCAT	TATCGACCAG	ATGCCAGCAG	GTCCGAAGCC 10260
TATTGTGACG	CGCTGGATCA	AACATGAGCA	ACTACCTCAG	GTCTTGACTT	GGTTAGAGGG 10320
GGAAATTCAA	AAAGGTTCCT	AAGTCTATGT	CATCTCTCCT	TTGATTGAAG	AATCAGAAGC 10380
TCTAGATTTG	AAAAATGCCA	TTGCCTTATC	AGAGGAGTTG	ACGACTCATT	TTGCAGGCAA 10440
GGCAGAGGTG	GCTCTTCTAC	ATGGTAGGAT	GAAGAGTGAC	GAAAAAGACC	AGATCATGCA 10500
GGATTTCAAG	GAGAGAAAGA	CGGATATTCT	GGTTTCGACG	ACGGTTATTG	AGGTTGGGGT 10560
CAACGTTCCT	AATGCGACTG	TCATGATTAT	CATGGATGCC	GATCGCTTCG	GTCTCAGTCA 10620
ACTTCACCAG	CTTAGAGGTC	GTGTCGGTCG	GGGGGACAAG	CAGTCCTACG	CTGTTCTCGT 10680
TGCTAATCCC	AAGACGGATT	CTGGGAAAGA	CCGCATGCGT	ATCATGACAG	AAACGACCAA 10740
TGGATTTGTC	CTTGCGGAGG	AAGATTTGAA	AATGCGTGGT	TCTGGTGAGA	TTTTTGGAAAC 10800
CAGACAGTCA	GGACTTCCAG	AGTTCCAAGT	GGCTGATATT	ATCGAAGATT	TTCCGATTTT 10860
AGAAGAAGCA	AGAAAGGTTG	CTAGCTACAT	TAGTTCTATA	GAAGCTTGGC	AAGAAGATCC 10920
AGAGTGCGC	ATGATTGCCC	TTCATCTGGA	AAAGAAAGAA	CATCTGGATT	AAGCTTTCTC 10980
TAAGGAAAAC	TTATACTCAA	TGAAAATCAA	AGAGCAAAC	AGGAAGCTAA	CCGCAGGTTG 11040
CTCAAAACAC	TGTTTTGAGG	TTGTGGATGA	AACTGACGAA	GTCAGCTCAA	AACACCGTTT 11100
TGAGGTGGCA	GATAGAACTG	ACGAAGTCAG	TAACATATAT	ATACGGTAAG	GCGACGCTGA 11160
CGTGGTTTGA	AGAGATTTTC	GAAGAGTATT	AAGCTAGTTT	TTAGGTTTGG	CTCTTATACT 11220
AGAGTCATCA	AAAAGAAACG	AGGACTCTCA	TATGACAGTA	ACGATTAAAG	TAAATTACCA 11280
AACCACTTTC	CAAAAGAAGG	AAGCAAAAAA	CTAGTATAAA	CAGAAGAGAG	AGCGAAATGC 11340
TCTTTTTTCG	TTTCTAAAAC	TACTTTCAGC	CCATCATCCT	AAAAGTAAAG	AATCTAAATT 11400
CACTTTCTAT	TTACCCTTCT	TTCTTGCAAT	GATTACATAG	ATATGCTACA	GTTGTGGTAA 11460
CGATTACAAA	ATAAAAGGAG	CATGCTATGA	AAAATCCAGC	TTTGCTAGAA	GAAATTAAGA 11520
CCTATAGAGG	AAGGGATGAG	GTTCCGGAAG	ACTTTGATGA	TTTCTGGGAT	GGGGAAGTGA 11580

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AAAATGTTTC CACGCTTCCA TCCTACCACT TGGAGGAAAG AGATTTCAC ATTCCTCAAG	11640
TCAAGTGCTA TGAGTTAACA TTTGAAGGAA GCAAGGAAGG AAAGGTCTAT GCACGCATTG	11700
TTCTTCCAAA GAGTGAGGAG AAGGTCCCAT TAATCTTCCA TTTTCATGGT TATATGGGAC	11760
GTGGCTGGGA CTGGGCCGAC ATGCTGGGCT TCACCGTAGC TGGTTACGGT GTTGTTFCCA	11820
TGGATGTGCG GGGCCAGTCA GGTTACTCAC AAGACGGCTT GCGTTCCTCT TTAGGAAATA	11880
CCGTGAAGGG GCATATTATC CGTGGTGCTG TGAAGGTCG GGACCACCTC TTTTATAAGG	11940
ATGTTTATCT GGATATTTAC CAGTTGGTCG AAATTGTTGC TAGTCTGTCT CAGGTTGATG	12000
AGAAGCGTCT TTCTAGCTAT GGTGCCTCAC AAGGAGGGGC TCTAGCTCTA GTTGCAGCAG	12060
CGCTCAATCC TCGAATTCAG AAAACAGTTG CCATTTATCC CTTCTTGTC AACTTCAGAC	12120
GGGTGATTGA GATTGGTAAT ACTAGCGAGG CTTACGACGA ACTTTTCCGT TATTTCAAGT	12180
TTCACGACCC CTTCCATGAA ACAGAGGAGG AAATCATGGC GACCCTTGCC TATATCGATG	12240
TCAAAAATCT TGCCCATCGT ATCCAAGGTG AGGTAAAGAT GATTACGGGC TTGGACGACG	12300
ATGTTTGCTA TCCCATTACC CAGTTTGCGA TTTATAATCG TCTGACCTGC GATAAAACCT	12360
ATCGCATCAT GCCTGAGTAT GCTCACGAAG CCATGAATGT ATTTGTCAAT GACCAAGTCT	12420
ACAACTGGCT CTGTGGAAGT GAGATTCCTT TTAAATATCT AAAATAAGGA GTCGACTCTA	12480
AGCACAAAAT CTTAAAAATT ACAACACGC ATAGTATCAG GGGATTAAGA AAACTTTATA	12540
CTATGCGTTT TATCATGGAA ATATAGTAAA ATGAAATAAG AACAGGACAA ATCGATCAGG	12600
ACAGTCAAAT CGATTCTTAA CAATGTTTTA GAAACAAATG TGTACTATTC TAGTGTCAAT	12660
CTATTATATT TATAGAATTT TTTGTGCTA GATTGTCAA ATTGCTTAA ATAATTTTTT	12720
TCAGAAAGCA AAAGCCGATA CCTATCGAGT AGGGTAGTTC TTGCTATCGT CAGGCTTGTC	12780
TGTAGGTGTT AATACTTTTC AAAAATCTCT TCAAACCACG TCAGCTTCGC CTTGC	12835

(2) INFORMATION FOR SEQ ID NO: 142:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5020 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 142:

GGGGATATGA AGAACAAAAG AATATTTAAA GACTTCCAAG CTTCAAAAAT GAGTTTAAAC	60
ATTTACACAA GCCCCTTGTT AGCCTTTGTT TTTGTCTTCA TAGGAGAGTT TGTGGCTTTT	120

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ACTTTGTATG GTATTGGCTT GTTAGCTCTC ATCGGACTTG CTAGAAATTT TGGAGAGGCT	180
GGTCAAAATC TTGCAAGCTA CTTGCAGACC TTGCATCAGA GCTTGACGGA TAAACAAGT	240
GACTTTCGTT TAATTTTAGG ATTACTGGCC TTTGGTTATT CTTAACACTG TGTTCAGATG	300
GACAAGAAAA GTTGAGAAAA GACCTATTCG AACCTTGGGA TTTTATAGAG AGAATTCCTT	360
CAGCAATCTT CTGAAAGGAT TTAGTCTAGG CCTGGCACTT TTTCTTCTGA CCTTGTTAGG	420
TTTAGTGGTC TTAGGTCAAT ATCGTTTGGA ATCCATTCAC TTGAATCCTT ATTCTCTTGC	480
CTTTGTCGTC TTTACTATCC CATTTTGGAT TTTACAGGGG ACAGCAGAAG AAGTGGTGGC	540
CCGTGCTTGG CTTACTTCCTC AATTGGCCTC AAGAACCAAT CTAAACTAG CTATTCTTAT	600
ATCTAGCCTG TTCTTTACCC TGCTTCATAT GGGCAATTCT GGTCTCACCC CTCTATCTCT	660
AGTAAATCTC TTTTATTCG GAGTTGCCAT GGCTCTTAC CTTCTCAAAA CTGATACAGT	720
TTGGGGTGTG GCAGGTATTC ATGGTGCTTG GAATTTTGCT CAGGGTAATC TCTTTGGGAT	780
TTTAGTTAGT GGTCAACCGT CAGaACGTCT CTGATGACCT TTTTACCACA AGGCAATCAA	840
GATTGGCTAT CAGGTGGTTC TTTTGGCATA GAAGGTTCCA TTATGACAAG TCTGGTATTA	900
CTACTGCTGA TTGTCTATCT TGCTAATAAA TTAAAGAAAG AAAATGAAAG GATGTGACTT	960
CGGTCCGTCC TTTTCTTCGT GAAAATACTA TAAGTATGCT AAAATAGGAA TAGCACATGG	1020
AGAGAGGATT CTTATGATCA ATCACATTAC AGATAATCAA TTAAACTAG TATCAAAATA	1080
TCAACCATCA GGAGATCAAC CCAAGCTAT CGAGCAGTTG GTGGATAACA TTGAGGGGGG	1140
AGAAAAAGCT CAGATTCTGA TGGGGGCGAC TGAACAGGG AAGACCTATA CTATGAGTCA	1200
GGTCATTCTT AAAGTCAATA AACCAACTCT GGTTATTGCC CACAATAAAA CTCTGGCTGG	1260
TCAGCTCTAT GGGGAGTTTA AGGAATTTTT CCCTGAAAAT GCAGTTGAGT ATTTCTGATC	1320
CTACTATGAT TATTACCAGC CAGAGGCCTA TGTCCTTCT AGCGATACCT ATATTGAGAA	1380
GGATAGTTCT GTCAATGACG AGATTGACAA GCTTCGCCAC TCAGCTACCT CAGCCCTTTT	1440
GGAGCGTAAT GATGTTATTG TCGTGGCCTC AGTCTCTTGT ATCTATGGTT TGGGTTGCC	1500
CAAGGAATAC GCTGATAGTG TCGTTAGTCT CCGTCCTGGT CTAGAGATTT CTCGTGATAA	1560
ACTCTGAAT GACTTGGTCG ATATTCAAGT TGAACGTAAT GATATTGATT TCCAACGCGG	1620
AAGATTTTCG GTTCGTGGGG ATGTGGTAGA GATTTTCCCA GCTTCCCGAG ATGAACATGC	1680
CTTTCGAGTA GAATTTTTTG GAGACGAAAT TGACCGTATT CGTGAAGTTG AGGCTCTGAC	1740
AGGTCAGGTG TTGGGAGAAG TGGATCATT AGCGATTTTC CCAGCGACAC ACTTTGTGAC	1800
CAATGACGAC CACATGGAAG TTGCCATTGC AAAGATTCAG GCCGAGTTGG AAGAACAATT	1860
AGCTGTCTTT GAAAAGGAAG GTAACTGCT TGAAGCCCAG CGTTTGAAAC AGCGGACAGA	1920

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GTATGATATC GAAATGTTGC GTGAGATGGG CTATACCAAT GGGGTTGAAA ATTATTTCTCG	1980
CCACATGGAT GGACGGAGCG AAGGAGAGCC TCCTTATACG CTTCTCGACT TCTTCCCAGA	2040
TGATTTCTTG ATTATGATTG ACGAGAGTCA TATGACCATA GGGCAAATCA AGGGCATGTA	2100
CAATGGAGAC CGTTCGCGTA AAGAAATGCT GGTTAATTAT GGTTTCCGTT TGCCGTCTGC	2160
TTTGGACAAT CGTCCTCTCC GTCGGGAGGA GTTTGAGAGT CACGTTTCATC AGATTGTTTA	2220
CGTTTCAGCG ACACCTGGTG ACTATGAAAA TGAACAGACC GAGACAGTGA TTGAGCAAAT	2280
CATTCGTCCA ACGGGACTCT TGGATCCAGA GGTGGAAGTC CGTCCGACTA TGGGACAGAT	2340
TGATGACCTC TTGGGTGAAA TCAATGCCCG CGTTGAAAAA AATGAGCGTA CCTTTATCAC	2400
AACTTTGACC AAGAAAAATGG CAGAGGATTT GACCGACTAC TTCAAGGAAA TGGGTATCAA	2460
GGTCAAGTAC ATGCACTCGG ATATCAAGAC CTTGGAACGG ACGGAGATTA TCCGTGACCT	2520
GCGCTTGGGT GTC'TT'GATG TCTTGGTCGG AATTAACCTG CTCCGTGAAG GAATTGACGT	2580
TCCTGAAGTG AGCCTCGTAG CTATTCTCGA TGCTGACAAG GAAGGTTTCC TTCGCAACGA	2640
ACGTGGACTC ATCCAGACCA TTGGACGTGC TGCACGTAAT AGCGAAGGTC ATGTTATCAT	2700
GTATGCGGAC ACGGTTACCC AGTCTATGCA ACGTGCTATC GATGAAACTG CCCGCCGTCTG	2760
CAAAATCCAG ATGGCCTATA ATGAAGAACA TGGTATCGTT CCACAAACCA TCAAGAAAGA	2820
AATCCGTGAC TTGATGCTG TGACCAAGGC AGTTGCTAAG GAAGAAGACA AGGAAGTCGA	2880
TATCAATAGC CTCAACAAAC AAGAGCGCAA AGAACTAGTC AAAAAGCTTG AGAAACAAAT	2940
GCAAGAAGCA GTTGAAGTGC TTGACTTTGA ACTAGCAGCT CAGATTCGTG ATATGATGCT	3000
GGAAGTCAAG GCCTTGGATT AGGGGAATAG TATGATTTAT TTAAGAAAGT TAAAGAAAGA	3060
AGATTGATG TCTTTATGGG AAATGGCTTA TTCACAGCTT AATCCAGTTT GGAAACAGTA	3120
TGATGCTCCC TATTATGATG ATTATCAGTA TTTTTCAAAT TTTAAAGAAT TCGAACTACA	3180
AAAATCAGAA TCCATTTTAA GCAACTCAAA TCGCCTTGGT ATTTTGTGTTG ATGATAAACT	3240
AGTTGGGACT GTTTCGCGTT ATTGGGTATG TAAAGAAACA AGATGGATGG AATTGGGAAT	3300
TGGTATTTAT GATAAAAAAT TCTGGAACAC TGGTATTGGG AAAGTTGCTA TGTTGCAGTG	3360
GATAGATAGG ACGTTTCAGG ATTACTTGGA GTTGGAGCAT CTGGGTTTGA CAACTTGGTC	3420
AGGAAATATT GGTATGATGA AACTTGCTGA AAAATTAAGA ATGAAAAAAG AAGCTCATAT	3480
TCCAAAAGTT CGTTATTATC AAGGTAAATA TTTTGACAGT ATTAAATATG GTATTTTGAG	3540
AGAAGACTGG GAGAAAATAA ATGACGGTTA TTATCAAATC AATGGAAACT CCTGAAGAGA	3600
TAGAAGGTAA ATCCTTCGTT CACTGGCAAA CGTGGAGAGA GGCTTATGAT GACCTTTTGC	3660

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CTGCGGAATT TCAGGAGACA ATGACATTAG AAAGATGTCG ACTCTTTAGT CAAAAGTATC	3720
CAGAAAATAC ATTGATTGCG ATGGATGGTG TGAAGATAGT TGGTTTTATA AGTTATGGCA	3780
ACTGTCGTGA TGAGACTATT CAAGCTGGTG AAATTATTGC TTTATATGTT TTAAGAACT	3840
ATTATGGAAG AGGAATCGCA CAAAAGTTAG TGAAGCAGC TTTGACTGAT CTTAATCATT	3900
TTTCTGAAAT TTTCTTATGG GTATTGAAAG ATAACAAGCG CGCCATTGCT TTCTATCAAA	3960
AAATGGGTTT TACTTTTGAT GGACAAGAAA AAATACTTGA ACTTGGAAG CCTATAAAGG	4020
AAAAACGGAT GGTATTCTAT TCTAAATAAT TCTCAAAAGT AAAAGCTAAT ATGGTACCAA	4080
GTCTGAAAAA TTAATAAATT AGAAAGCGAG TAAATTTATG TCCCGTTCCC AATTAACAAT	4140
TTTAACAAAT ATCTGTCTGA TTGAAGACCT CGAACTCAG CGCGTGGTGA TGCAGTATCG	4200
CGCCCCTGAA AACAAATCGCT GGTCTGGTTA TGCCTTTCCT GGAGGTCATG TAGAAAATGA	4260
TGAGGCTTTT GCGGAGTCTG TCATTCTGTA AATCTACGAA GAAACAGGGT TGACTATCCA	4320
AAATCCTCAA CTTGTCGGCA TTAAGAAATTG GCCACTAGAT ACAGGTGGGC GCTATATTGT	4380
CATTTGTTAT AAGGCGACTG AGTTCTCTGG TACCCTTCAA TCTTCAGAAG AGGGAGAAGT	4440
TTCTTGGGTG CAAAAGACC AGATTCCAAA CTTAAATCTG GCCTATGATA TGCTACCATT	4500
GATGGAAATG ATGGAAGCTC CCGACAAGTC AGAGTTTTC TACCCTCGCC GTACAGAAGA	4560
CGATTGGGAA AAGAAAATCT TCTAGTCTTT TACTAAATAA CCTAGCTGAT CCAAGGCCTC	4620
CTCGATATAG TGGAGGTCTT GTTGTGTCTC GGCTTCAACT AGGTGATAAT GAATACCATC	4680
TGTTAACTCA GAAATTGGCT TAAAGTCAGA ACGTTCAACT TGTTCTAGAA AATGTTGCAC	4740
GTCGCGGCGA CAGGTCAAGT TTAGTAAGGT TTCAATCTCT CCATAAACAG GATGATCAAT	4800
CAAGATATTT TGAACGCGAC CACCATTATC TACGATAGCA AGTAATTCTC GTCCAATTC	4860
TTCAACTTCA TGCTTGACCT TAAATAATTT GTGATGATAA GTATTTGCAT TAGCATCTTT	4920
ATAGATATAA CCACGATTGG TAGATAGAAT TGGAGATCCA TCAGCTCTTA AAATGCAAT	4980
ATCTTGAACA ATAAGTTGTC GAGTGACATG AAAGTGCTCA	5020

(2) INFORMATION FOR SEQ ID NO: 143:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4965 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 143:

AAAAAGTGGC AATCCATTGA TTGGCCACTT CATTTAGAGA ATTATCGTCT CGCCCTTGAA	60
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GAAGAAGGTC GTGTAGTACT TGAGTTACTG CTATCGCTAG AACTACTACT TGAAGTCTG	120
GAGCTGGATG GAGTTGGTAG ACTCCCCACA ATACTAGACC AAGCATTCTG ATAATCCGCA	180
TCACTTCCGC CAATAGCAAA GCGATAACTT GTCGCTGGCG CTCCTGACTT ATTAGCCCAA	240
TAGCTGGTAA CAGTCGAACC TGTGACCTCT ACTTCTTTTC CTCAACAGA AACCTTCTCT	300
GGTTTTTGAC CTGTTGATTT CAAGACTTCC GATTTCACTA CACTAGGATC TAAAGCAAAG	360
CGCTCGTTCC CCCAAATGCT TGGGGAAGCT TGCTGAATCG CATTACCAG ATGAGCCATG	420
TAATTAGAGT TATTAGAATA ACCTGCTCTA CGTGACAATG AATGATTATC ATCATGCCCA	480
ATCCAGCCAC CTAGGGTTAA TCTAGGTGTC GAAAGCATGA GCCACATATT TTCGTCTTGG	540
TTGGTTGTAC CAGTCTTCCC AATCCAATCT GCATTAGCCA GAGTAGGATT TAAAGAAGTC	600
AGGTTAGACT TGAAGGTTGT TGTCACACGA GAGGATAGAA CTTCCTCGTAG CAATCCCTGC	660
ATAATCGTCG CAGTAGCTTT TGAATAGACT TGAACCGGTT TATCCTGATA CTCATACACC	720
ACTCTACCAT CTGCTGCTTC AATCTTTGAA ATCACATGCT TCTGATGATA AACTCCATTA	780
TTAGCTAAGG TCTGATAGCC ATTGGTATGC TGGGCAACTG TGACTTCAAT ACCACCACCC	840
ATTGGCAAGC TCTCAATACC GTACTCAGGA ATCTCGTAAC CCATCTTTTC CATATAACCC	900
TTGACATCAA CACCCTTTTC ACGGAGCATA CGATAGGTCC AGTAAGCAGG GATATTCCAT	960
GAATAGTTCA GAGCTTCTCC CAAGGTCATC ATTCCTGTTC CCTTGCTATT AGCATACATA	1020
ATCGGATTGC CATTAGCAAA GTTTGTTGGA TAGTTAGATA GAATCGTTTC ACTTCCCATC	1080
AAGCCCTGGT CAATAGCAAT ACCGTAGGCC AGCAAGGGCT TGGTAGTAGA AGCTGGCGAA	1140
CGTTTGGTAT CAAAGGCATG ATTATTTTGA TTTTCTTGAT AATTACGACC ACCTACAAAG	1200
CCTAGAAATG CACCTGTTTG GTTATCCATC AAGACATTCC CTACTTCTAC ACGACCTGTT	1260
CCATCGTCTA AAAGATAGCC ATAATCAGCA ACCGCACTTT GCATGGCAGA ATGAATTTTC	1320
TGATCTATGG TAGTAGTAAT CTTATAACCA CCATTTTCAA TTTCCCTTGGC TGCCAAATCT	1380
CGATAAAACT TCTGAGTTGC CTCATTTTTC AACTCCTTAG CGGAGACATT GTCTCTCTGA	1440
GCTAGATAGT CATAATACG TTCTTGAGCT TCTGCCAAAG TTGTAAAGTA TAAATAGTCT	1500
CGTGAAATTC CTGTAACCGT GCCCGATGGT AAAAAGTCCT GTTTAAGGTC ATAATCCTTG	1560
TACTGAGAAT ACTCGTCTTT GCTTAATGCA CCTGTACGAT ACATACTGTA AAGAACTGCC	1620
TTAGCCCGTC TTAAGCCAAT TTCTAGGTCT TCATCACTCT TCAACTCCCC AGTATTTTCA	1680
TAAGGAGAGT AAGTAATGGG ACTCTGTGGA AGTCCTGCTA AAAATGCTGC TTGAGGAACA	1740
GTCAACTGAC TGGCATCTAC ACCGAAAATT CCCTCAGCTG CTGCGCGAGC CCCTGCAATA	1800

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TTCTGTCCCT	TATTATTTTCG	GCCAAAGGGA	GCCACATTGA	GATAGGTCGT	TAAAATCTCA	1860
TCTTTATATCA	TGGCGCGTTC	CAAGGCAAGA	GCATCCACAA	TCTCTGCCGC	CTTACGAGCC	1920
AAGGTCGGCG	CATCCCCAAC	CACCTGCTGT	TTAATTAGTT	GCTGGGTCAA	GGTTGAACCC	1980
CCACTAGAGG	AACCCAAACC	TACAAATTTT	CCCAAGGTCG	CACGAATCAC	CGCCTTGGGT	2040
ACTACACCCT	TATGTTCTTT	AAAGTGTTCA	TCTTCTGTCT	CAATGATAGC	CTTCTTCAGA	2100
TTTTCCGAAA	TTTGCTCAGA	TGAGATAGAA	GTGCGCAACA	AATCACTCTC	TATGGAAGCA	2160
ATCACCGTCC	CGTCCGAATA	GGTAATCTCT	GAAATAGAAG	AGATGTCCTT	GACCTGATTC	2220
ACCAATTCTT	CTGTCTGAGG	CACCCGAACC	TTGTCAAATA	AGGCCACTCC	GTATCCCAAA	2280
GCAATCCCAG	CTCCCAACAT	TCCTCCTAGA	AAACCGAGTA	CAAAGAGTAA	GTAAATAAAG	2340
GCTTTTATAC	TCAGTAAAT	AGCTGGGAAA	ATGACTGACT	TATCTAAGGT	TTTAGATTTT	2400
TTGGTACTTG	AACCTTTCTT	GCCAGGTCTA	GCTGATTTT	TATTTTTTTG	TTTTTGCTGG	2460
AAAAATTTCA	GCATTTTTTCG	TTTTAATTCA	TTTAATTGAT	TTTGCATGGA	TTTCCTCACT	2520
TTATCTATTA	TACCACAAAA	GGGAAATTTT	CAATAAAATA	GCCACTTTCT	TCCCTATTCT	2580
GCTAGGCTAT	TGCCCAAGTT	TGTGATACAA	TAGGTAGAAA	CAATAATTTT	AAAAAGGAGA	2640
AAAAACACAT	GCACATTTTT	GATGAGCTAA	AAGAGCGTGG	TTTGATATTT	CAAACGACTG	2700
ATGAAGAAGC	TTTGCGTAAA	GCCCTAGAAG	AAGGTCAAGT	TTCTTATTAT	ACTGGCTACG	2760
ATCCAATGCG	TGACAGCCTT	CACCTAGGCC	ACCTTGTCGC	AATCTTGACA	AGTCGTCGCT	2820
TGCAACTAGC	AGGTCACAAA	CCTTATGCGC	TCGTTGGCGG	TGCTACAGGT	CTCATCGGAG	2880
ATCCGTCCTT	CAAAGATGCT	GAACGTAGTC	TCCAAACAAA	AGACACAGTA	GATGGCTGGG	2940
TCAAGTCTAT	CCAAGGACAA	CTTTCTCGTT	TTCTTGACTT	TGAAAATGGC	GAAAACAAGG	3000
CTGTCATGGT	CAACAACAT	GACTGGTTTG	GCAGCATCAG	CTTCATTGAC	TTCTCCGTG	3060
ATATTGGAAA	ATACTTCACG	GTCAACTACA	TGATGAGTAA	GGAATCTGTT	AAAAAACGGA	3120
TCGAAACAGG	AATTTCTTAC	ACTGAGTTCG	CTTACCAAAT	CATGCAAGGG	TATGACTTCT	3180
TCGTCCTTAA	CCAAGACCAT	AATGTCACTC	TTCAAATCGG	TGGTTCTGAC	CAGTGGGGAA	3240
ATATGACAGC	TGGTACCGAA	TTGCTTCGTC	GTAAGGCCGA	CAAGACTGGT	CACGTTATCA	3300
CTGTTCCACT	AATCACAGAT	GCAACTGGTA	AGAAATTTGG	TAAATCAGAA	GGAAATGCCG	3360
TCTGGCTCAA	TCCCGAAAAG	ACTTCTCCAT	ACGAAATGTA	CCAATTCTGG	ATGAACGTGA	3420
TGGACGCTGA	CGCTGTTCCG	TTCTTGAAAA	TCTTTACTTT	CTTGTCACTT	GATGAGATTG	3480
AAGATATTCG	TAAACAATTT	GAAGCAGCGC	CACACGAACG	CTTGGCTCAA	AAAGTCTTGG	3540
CTCGTGAAGT	TGTTACACTT	GTTCACGGAG	AAGAAGCCTA	CAAAGAAGCA	CTTAACATCA	3600



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CTGAGCAACT CTTTGCAGGA AACATCAAAA ACCTTTCTGT CAAAGAGCTC AAACAAGGAC	3660
TTCGTGGTGT GCCCAACTAC CAAGTACAGG CAGACGAAAA CAACAATATC GTGGAAGTGC	3720
TCGTCTCATC TGGTATAGTT AACTCAAAAC GCCAAGCCCG TGAAGACGTC CAAAACGGAG	3780
CCATCTACGT AAACGGCGAC CGCATCCAAG AGCTTGACTA TGTCTTGAGT GACGCTGATA	3840
AGTTAGAGAA TGAAGTACT GTTATCCGTC GTGGGAAGAA AAAATACTTT GTATTGACTT	3900
ACTAACTAT TCAACATTTA TCTATAAACA AAGGAGTTAA CCTCGAGAAA GGTAACTCCT	3960
TTTTGCTGTT AATAACTCTC ATCTATCTAT TTTTAATAGA CAGGCTACGC AGGACAATGC	4020
GCAAGGTTGT TAGATTATGT AAGATAGAGA GATTTGAAGG ACTGAACCAA TTAAATAAGC	4080
CAAAGCCAAT CAAACTACTA TTTACGACAA CGGTATCCTG AATATTTTTC TTGATGAGTG	4140
TTTGCAAAGA TGATGATAAC GAATCCAAC CTTGGAAGAA ATCCAAACGA TTATCTAACA	4200
ATAAGATATC ACTCATCTGC TTAGAAATAT CTGCACCTC ATTCATCACC ACACCGATAT	4260
CTGATAGAGT TAAAGCCGCT GAGTCATTCA ATCCATCTCC AACCATCAAA ATAGTGTGAC	4320
CTGCTTTCTG CAGTTTCTCT ACTAACTCAA ATTTCCCATC AGGTTTCAAG TCTGTATAGA	4380
CCTGATCAAA GGGCAAATCT TTGACTAATT CCTCTGTCCT AATCAAGGTG TCTCCTGTTG	4440
CCAGAATCAA TTTTTTCCCC TGTGCCTTAA GTTTATCCAA GGCTGTTTTT GCTTCTTTTC	4500
TCAAAGGAGT ATGAATGCAG AACATTCCAA TCAATTCATT TTGATAAGCC AAGAATAAGA	4560
GATTGTAAGT ACTCTTGAC TCTTCAATTA AAGCATTTTG TTCTGAACTG ATATGAATCT	4620
GCTCATCCTG CATCAAGACA TAATCCCAA TAAGAACTGG TTGGCCATCT ATATGAGATT	4680
TGATCCCCTT GCTTGCGATA TATTGGAGTT TCCCATGCAT TTCCTCATGT TCAATTCCTT	4740
CTATCTCAGC TTGCTTGACG ATGGCATTAG CAATAGGATG ATAAATGTGT TCCTCAAGAC	4800
AGGCACTGAT TCTGAGAATA TCTTCTCAC TATAGTCTCC AAAAGGTAAC ACCTTTTCAA	4860
CTATAGGATA ACTAGTTGTG ATTGTTCTG TCTTATCAAA CAAGAAAGTA TCAACTTCCA	4920
GATATTCTC CCTGTTGTGG CCTCTGGCTG TCATCTCTGT GCTGG	4965

(2) INFORMATION FOR SEQ ID NO: 144:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3232 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 144:

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CAGGGGCGTA TTACGTGACA ATTCAATGTA GGCTGTCGCT ACTTGCGCCA AAACAAGGAT	60
TCGATAATGT CGGATGATAC TAACGATTAA ACCGAGCAGA AAGGATCCCA AAATTCCTCA	120
AACTGCAATA TGCAAGGTCA GAAAGAATGC CTTTTGATAT AGTGGTAGAT ATTGTTCAAC	180
AATGGATCAA TCCAAAAATA GAACCTCCCA TCTAGAAATA ATACAGTTAT TGTAGCACTT	240
AAAAATCTTCT TTGGATAATA TCTATTTTTT ATTGCCGTTA TAAGGATTTT TATCATAGAC	300
ATAAAATTTTC TGAAATTTCC AAACAAAATA TTTTAAAAGT TTTGAAAAAG AGTTAAGATA	360
TTTTTGTAAT ACACAAAGTA AACGCTTACT TATTAAGGAG GACATTTTAT GTCATACAAA	420
ACAAGCAATG CAGAAGGTCA TGTAAGTTTC ATCAATACCT ATGATTGGA GCCAATGGCG	480
CAACAAGTTA TTCCTAAAGC AGCATTTGGC TATATCGCTA GTGGGGCGGG AGATACTTTC	540
ACTTCTTTCC AGTGATTTTA GCGTCAGGT CTTTTAGTT TTTAAAGATT ATCCGTGAAT	600
TTCTTGCTTA TTTATGATAA AATGGGAGTG TCGCAAAAAA TGACTCATCG TATTCAATTT	660
TGAGTAAAC TAGGAGGATC CCATGTCTAC AGAACATATG GAAGAACTAA ATGACCAGCA	720
GATCGTTTCG CGTGAAAAA TGCTGCGCT CCGCAACAA GGAATCGATC CTTTCGAAA	780
ACGTTTTGAA CGTACTGCAA ATTCACAAGA ATTAAAAGAT AAATATGCCA ACCTCGATAA	840
AGAACAATTA CACGATAAAA ACGAAACAGC TACTATCGCA GGACGCTTGA TAACCAAACG	900
TGGTAAAGGA AAAGTTGGTT TTGCCCACCT TCAAGACCGC GAAGGCCAGA TTCAGATCTA	960
CGTTCGTAAG GATGCTGTCG GTGAAGAAA CTACGAAATC TTCAAAAAAG CAGACCTTGG	1020
TGACTTCCTT GGTGTCGAAG GTGAAGTAT GCGTACGAT ATGGGAGAAC TCTCTATCAA	1080
GGCAACCCAC ATCACACACT TGTCTAAGGC TCTTCGTCCT CTTCTGAGA AATTCATGG	1140
TTTGACAGAC GTTGAAACAA TTTACCGTAA ACGTTACCTT GACTTGATTT CTAATCGTGA	1200
AAGCTTTGAA CGCTTTGTCA CTCGTTCAAA AATCATCTCT GAAATCCGTC GTTACCTTGA	1260
CCAAAAAGGA TTCCTTGAA TGGAAACACC TGTTCTTCAT AATGAAGCCG GTGGTGCTGC	1320
TGCCCCGCCA TTTATCACCC ACCACAATGC CAAAACATT GACATGGTGC TTCGTATCGC	1380
GACTGAGCTT CACTTAAAC GCCTTATCGT GGGTGGTATG GAACGTGTCT ATGAAATTGG	1440
CCGTATCTTC CGTAACGAAG GAATGGACGC TACTCATAAC CCTGAGTTCA CTTCTATCGA	1500
AGTTTACCAA GCTTATGCAG ACTTCCAAGA CATCATGGAC TTGACTGAAG GCATTATCCA	1560
ACACGCTGCT AAATCAGTCA AAGGTGATGG CCCAGTCAAC TACCAAGGTA CTGAAATCAA	1620
GATTAACGAA CCATTTAAGC GTGTTTATAT GGTGGATGCT ATCAGAGAAA TTACTGGTGT	1680
CGATTTCTGG CAAGACATGA CTTTGGAAGA AGCTAAAGCT ATCGCTGCTG AGAAGAAAGT	1740
TCCAGTTGAG AAACACTACA CTGAGGTTGG TCACATCATC AATGCCTTCT TTGAAGAGTT	1800

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TGTTGAAGAA ACTTTAATCC AACCAACCTT TGTCTATGGA CATCCAGTAG CTGTATCTCC	1860
ACTCGCTAAG AAAAATCCTG AAGACCAACG CTTTACTGAC CGTTTCGAGC TCTTTATCAT	1920
GACTAAGGAG TACGGTAATG CCTTACTGA GTTGAACGAC CCAATCGACC AACTTAGCCG	1980
TTTGAAGCC CAAGCTAAAG CCAAAGAACT TGGTGATGAT GAAGCGACAG GAATCGACTA	2040
TGACTACATT GAAGCTCTTG AATACGGTAT GCCACCAACA GGTGGTTTGG GAATCGGTAT	2100
CGACCGTCTC TGCATGCTCC TCACTGATAC AACAACTATC CGTGATGTAT TGCTCTTCCC	2160
AACAATGAAA TAAATTCTTA TCCTCTGGGT CTTATCAGAG GATTTTTTGA TTCAAAAAGA	2220
GACTGAATTT AAGGAGAAAA TGAAGTGTAG TATATTGAAA TTGAAATAGT AACTTTTGAT	2280
TTCTAAGACA TTGTTAGAAA TTGGTTTAAA TTCCCTAAGC AATTTGTGCA TGTTTTATTT	2340
CATTTTACGA TAGTACGCTG AAACCTTTCA AAAAGTACTA GAAATTGACT TGGATTCCCC	2400
AATTGATTG TTCAGATTCA CTATAAATAA AAAATTAATA AGTGGGATAG GAAGTTAGCG	2460
TCAACTAGGA TAGTATCTTG CTAAACAGT ATATATGGGA TTGATATAAG TCCATAGGTC	2520
CTATTAGAGG ATGTTCTGGT GTCTTATCA CTTGTTTTTT ATAGTATTAG TAGATAGAAT	2580
CAGCAAATAA AAACCCAAAT CATTCATACC TCTCTCAACT AGATGTAAC TACAAAACCC	2640
CTGACCTCAT GAGCCACTTT CTCCTCCTC ATGAGGTCAG TTTTACTTTC TGCTGTTCCA	2700
GTATCGTTTT TCCTCGTAG ATTCCTCAA AAGGGCAGAC TCCTCCCTTG GTGCGTCACA	2760
CGATTTTTTC ATCTCGACTG TTCTTTAATG CATCATTAAC GACGCTTTTC TTCTAGGTGG	2820
TTCATAAGGA ACAGGAAGAT TCAGGTGAC TTTTCTAATC CTAGAATAAA GTGCTGAAAA	2880
CAATTCGGAA TAGGCATAGA GACTAGACAA TTTGAGGAGC TGCTTGCGTC CTGTTCGAAC	2940
ACATTTTCCC ACCACGTGAA GAAAAAGATG GCGGAAGCGT TTGATTGTTA AAGTTTGAA	3000
GTCACCTCCA GCTAGATGTT TGAGAAAAAG ATAGAGATTG TAGGCGATAC AGCTCATCAT	3060
CATACGAACT TCGTTTTTGA TTAAGGTTGA ACTATCCGTT TTATCGCCAA AAAATCCCTC	3120
CTTCATCTCC TTGATGAAAT TCTCGGCTTG ACCACGTCCA CGATAAAGCT GAAACTGGTC	3180
TTGGCTTGTT CCACTCGTCA TATTTGTAAC GAGAGAAATA ACATCGTAGA AC	3232

(2) INFORMATION FOR SEQ ID NO: 145:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10711 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 145:

CCGGAGAAAA TGATGAAAAG TTCAAAACTA TTTGCCCTTG CGGGCGTGAC ATTATTGGCG	60
GCGACTACTT TAGCTGCATG CTCTGGATCA GGTTC AAGCA CTAAAGGTGA GAAGACATTC	120
TCATACATTT ATGAGACAGA CCCTGATAAC CTC AACTAT T TGACAACTGC TAAGGCTGCG	180
ACACAAATAT TACCAGTAAC GTGGTTGATG GTTTGCTAGA AAATGATCGC TACGGGAACT	240
TTGTGCCGTC TATGGCTGAG GATTGGTCTG TATCCAAGGA TGGATTGACT TACACTTATA	300
CTATCCGTAA GGATGCAAAA TGGTATACTT CTGAAGGTGA AGAATACGCG GCAGTCAAAAG	360
CTCAAGACTT TGTAACAGGA TTA AATATG CTGCTGATAA AAAATCAGAT GCTCTTTACC	420
TTGTTCAAGA ATCAATCAAA GGGTTGGATG CCTATGTAAA AGGGGAAATC AAAGATTTCT	480
CACAAGTAGG AATTAAGGCT CTGGATGAAC AGACAGTTCA GTACACTTTG AACAAACCAG	540
AAAGCTTCTG GAATTCTAAG ACAACCATGG GTGTGCTTGC GCCAGTTAAT GAAGAGTTTT	600
TGAATTCAAA AGGAGATGAT TTTGCCAAAG CTCAGGATCC AAGTAGTCTC TTGTATAACG	660
GTCCTTATTT GTTGAAATCC ATTGTGACCA AATCCTCTGT TGAATTTGCG AAAAAATCCGA	720
ACTACTGGGA TAAGGACAAT GTGCATGTTG ACAAAGTTAA ATTGTCAATC TGGGATGGTC	780
AAGATACCAG CAAACCTGCA GAAAACCTTA AAGATGGTAG CCTTACAGCA GCTCGTCTCT	840
ATCCAACAAG TGCAAGTTTC GCAGAACTTG AGAAGAGTAT GAAGGACAAT ATTGTCTATA	900
CTCAACAAGA CTCTATTACG TATCTAGTTG GTACAAATAT TGACCGTCAG TCCTATAAAT	960
ACACATCTAA GACCAGCGAC GAACAAAAGG CATCGACTAA AAAGGCTCTC TTAAACAAGG	1020
ATTTCCGTCA GGCTATTGCC TTTGGATTTG ACCGTACAGC CTATGCCTCT CAGTTGAATG	1080
GACAAACTGG AGCAAGTAAA ATCTTGCGTA ATCTCTTTGT GCCACCAACA TTTGTTCAAG	1140
CAGATGGTAA AACTTTGGC GATATGGTCA AAGAGAAATT GGTCAC TTAT GGGGATGAAT	1200
GGAAGGATGT TAATCTTGCA GATTCTCAGG ATGGTCTTTA CAATCCAGAA AAAGCCAAGG	1260
CTGAATTTGC TAAAGCTAAA TCAGCCTTAC AAGCAGAAGG AGTCCAATTC CCAATTCATT	1320
TGGATATGCC AGTTGACCAA ACAGCAACTA CAAAAGTTCA GCGCGTCCAA TCTATGAAAC	1380
AATCCTTGGA AGCAACTTTA GGAGCTGATA ATGTCAATTAT TGATATTCAA CAACTACAAA	1440
AAGACGAAGT AAACAATATT ACATATTTTG CTGAAAATGC TGCTGGCGAA GACTGGGATT	1500
TATCAGATAA TGTCGGTTGG GGTCCAGACT TTGCCGATCC ATCAACCTAC CTTGATATTA	1560
TCAAACCTTC TGTAGGAGAA AGTACTAAAA CATATTTAGG GTTTGACTCA GGGGAAGATA	1620
ATGTAGCTGC TAAAAAGTA GGTCTATATG ACTACGAAAA ATTGGTTACT GAGGCTGGTG	1680
ATGAGACTAC AGATGTTGCT AAACGCTATG ATAAATACGC TGCAGCCCAA GCTTGGTTGA	1740

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CAGATAGTGC	TTTGATTAT	CCAACTACAT	CTCGTACAGG	GCGTCCAATC	TTGTCTAAGA	1800
TGGTACCATT	TACAATACCA	TTTGCATTGT	CAGGAAATAA	AGGTACAAGT	GAACCAGTCT	1860
TGTATAAATA	CTTGGAAC	CAAGACAAGG	CAGTCACTGT	AGATGAATAC	CAAAAAGCTC	1920
AGGAAAAATG	GATGAAAGAA	AAAGAAGAGT	CTAATAAAAA	GGCTCAAGAA	GATCTCGCAA	1980
AACATGTGAA	ATAACTGTTG	CAAAATATAA	GAAAGGATTT	AGTATTTCCC	TTGAATGCTG	2040
AATCCTTTTT	TACATTTGTA	AAGAAAGATT	CTAAAATGTA	CGGACCCCCA	AAAGTTGGAG	2100
CCTCTTTTTG	TCAGAATAGA	GAAAATTTTT	GTTAATTTTA	CTTGTTTCCT	ATTGCTTTCT	2160
CAGCTATTAT	TTGTTATAT	AAAAGTATAA	TTATTTTTTA	TTTATCAGAG	TTAAGCATTG	2220
CACTTTCAGA	GGAAGGAGTA	TTTTTTAAAA	AGAAAATGTA	AACGTTTGCT	CAAAAATGAA	2280
AGGATTTAGA	AGTTTATGAA	TAAAGGATTA	TTTGAAAAAC	GTTGTAAATA	TAGTATTCGG	2340
AAATTTTCAT	TAGGTGTTGC	TTCTGTTATG	ATTGGAGCTG	CATTCTTTGG	GACAAGTCCG	2400
GTTCTTGCA	ATAGCGTGCA	GTCTGGTTCC	ACGCGGAAC	TACCAGCTGA	TTTAGCTACT	2460
GCTCTTGCAA	CAGCAAAAGA	GAATGATGGG	CGTGATTTTG	AAGCGCCTAA	GGTGGGAGAA	2520
GACCAAGGTT	CTCCAGAAGT	TACAGATGGA	CCTAAGACAG	AAGAAGAACT	ATTAGCACTT	2580
GAAAAAGAAA	AACCGGCTGA	AGAAAAACCA	AAAGAGGATA	AACCTGCAGC	TGCTAAACCT	2640
GAAACACCTA	AGACGGTAAC	CCCTGAATGG	CAAACGGTAG	CGAATAAAGA	GCAACAGGGA	2700
ACAGTCACTA	TCCGAGAAGA	AAAAGGTGTC	CGCTACAACC	AACTATCCTC	AACTGCTCAA	2760
AATGATAACG	CAGGCAAACC	AGCCCTGTTT	GAAAAGAAGG	GCTTGACCGT	TGATGCCAAT	2820
GGAAATGCAA	CTGTTGATTT	AACCTTCAAA	GATGATTCTG	AAAAGGGCAA	ATCACGCTTT	2880
GGTGCTTTTT	TGAAATTTAA	AGATACCAAG	AATAATGTTT	TTGTCGGTTA	TGACAAGGAT	2940
GGCTGGTTCT	GGGAGTATAA	ATCTCCAACA	ACTAGCACTT	GGTATAGAGG	TAGTCGTGTT	3000
GCTGCTCCTG	AAACAGGATC	AACAAACCGT	CTCTCTATCA	CTCTCAAGTC	AGACGGTCAG	3060
CTAAATGCCA	GCAATAATGA	TGTCAATCTC	TTTGACACAG	TGACTCTACC	AGCTGCGGTC	3120
AATGACCATC	TTAAAAATGA	GAAGAAGATT	CTTCTCAAGG	CGGGCTCTTA	TGACGATGAG	3180
CGAACAGTTG	TTAGCGTTAA	AACGATAAC	CAAGAGGGGG	TAAAAACAGA	GGATACCCCT	3240
GCTGAAAAAG	AAACAGGTCC	TGAAGTTGAT	GATAGCAAGG	TGACTTATGA	CACGATTCAG	3300
TCTAAGGTCC	TCAAAGCAGT	GATTGACCAA	GCCTTCCCTC	GTGTCAAGGA	ATACAGCTTG	3360
AACGGGCATA	CTTTGCCAGG	ACAGGTGCAA	CAGTTCAACC	AAGTCTTTAT	CAATAACCAC	3420
CGAATCACCC	CTGAAGTCAC	TTATAAGAAA	ATCAATGAGA	CAACAGCAGA	GTACTTGATG	3480

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AAGCTTCGCG	ATGATGCTCA	CTTAATCAAT	GCGGAAATGA	CAGTACGCTT	GCAAGTTGTA	3540
GACAATCAAT	TGCACTTTGA	TGTGACTAAG	ATTGTCAACC	ACAATCAAGT	CACTCCAGGT	3600
CAAAAGATTG	ATGACGAAAG	CAAACTACTT	TCTTCTATTA	GTTTCCTCGG	CAATGCTTTA	3660
GTCTCTGTTT	CTAGTAATCA	AACTGGTGCT	AAGTTTGATG	GGGCAACCAT	GTCAAACAAT	3720
ACGCATGTCA	GCGGAGATGA	TCATATCGAT	GTAACCAATC	CAATGAAGGA	TTTGGCTAAG	3780
GGTTACATGT	ATGGATTTGT	TTCTACAGAT	AAGCTTGCTG	CTGGTGTTTG	GAGTAACTCT	3840
CAAAACAGCT	ATGGTGGTGG	TTCGAATGAC	TGGACTCGTT	TGACAGCTTA	TAAAGAAACA	3900
GTCGGAATG	CCAACTATGT	AGGAATCCAC	AGCTCTGAAT	GGCAATGGGA	AAAAGCTTAT	3960
AAGGGCATTG	TTTTCCCAGA	ATACACGAAG	GAACTTCCAA	GTGCTAAGGT	TGTTATCACT	4020
GAAGATGCCA	ATGCAGACAA	GAACGTTGAT	TGGCAAGATG	GTGCCATTGC	TTATCGTAGC	4080
ATTATGAACA	ATCCTCAAGG	TTGGGAAAAA	GTTAAGGATA	TCACAGCTTA	CCGTATCGCG	4140
ATGAACTTTG	GTTCTCAAGC	ACAAAACCCA	TTCTTTATGA	CCTTGGATGG	TATCAAGAAA	4200
ATCAATCTCC	ATACAGATGG	TCTTGGGCAA	GGTGTCTCCT	TTAAAGGATA	TGGTAGCGAA	4260
GGCCATGACT	CTGGTCACTT	GAACATGCT	GATATTGGTA	AGCGTATCGG	TGGTGTGCGA	4320
GACTTCAAGA	CCCTAATTGA	GAAGGCTAAG	AAATATGGAG	CTCATCTAGG	TATCCACGTT	4380
AACGCTTCAG	AAACTTATCC	TGAGTCTAAA	TACTTCAATG	AAAAAATTCT	CCGTAAGAAT	4440
CCAGATGGAA	GCTATAGCTA	TGGTTGGAAC	TGGCTAGATC	AAGGTATCAA	CATTGATGCT	4500
GCCTATGACC	TAGCTCATGG	TCGTTTGCCA	CGTTGGGAAG	ATTTGAAGAA	AAAACTTGGT	4560
GACGGTCTCG	ACTTTATCTA	TGTGGACGTT	TGGGGTAATG	GTCAATCAGG	TGATAACGGT	4620
GCCTGGGCTA	CCCACGTTCT	TGCTAAAGAA	ATTAACAAAC	AAGGCTGGCG	CTTTGCGATC	4680
GAGTGGGGCC	ATGGTGGTGA	GTACGACTCT	ACCTTCCATC	ACTGGGCAGC	TGACTTGACC	4740
TACGGTGGCT	ACACCAATAA	AGGTATCAAC	AGTGCCATCA	CCCGCTTTAT	CCGTAACCAC	4800
CAAAAAGATG	CTTGGGTAGG	GGACTACAGA	AGTTATGGTG	GTGCAGCCAA	CTATCCACTG	4860
CTAGGTGGCT	ACAGCATGAA	AGACTTTGAA	GGCTGGCAGG	GAAGAAGTGA	CTACAATGGC	4920
TATGTAACCA	ACTTATTTGC	CCATGACGTC	ATGACTAAGT	ACTTCCAACA	CTTCACTGTA	4980
AGTAAATGGG	AAAATGGTAC	ACCGGTGACT	ATGACCGATA	ACGGTAGCAC	CTATAAATGG	5040
ACTCCAGAAA	TGCGAGTGGA	ATTGGTAGAT	GCTGACAATA	ATAAAGTAGT	TGTAACTCGT	5100
AAGTCAAATG	ATGTCAATAG	TCCACAATAT	CGCGAACGTA	CAGTAACGCT	CAACGGACGT	5160
GTCATCCAAG	ATGGTTCAGC	TTACTTGACT	CCTTGGAAGT	GGGATGCAAA	TGGTAAGAAA	5220
CTTCTACTG	ATAAGGAAAA	GATGTACTAC	TTCAATACGC	AGGCCGGTGC	AACAACTTGG	5280

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ACCCTTCCAA	GCGATTGGGC	AAAGAGCAAG	GTTTACCTTT	ACAAGCTAAC	TGACCAAGGT	5340
AAGACAGAAG	AGCAAGAACT	AACTGTAAAA	GATGGTAAAA	TTACCCTAGA	TCTTCTAGCA	5400
AATCAACCAT	ACGTTCTCTA	TCGTTTCGAAA	CAAAC TAATC	CTGAAATGTC	ATGGAGTGAA	5460
GGCATGCACA	TCTATGACCA	AGGATTTAAT	AGCGGTACCT	TGAAACATTG	GACCATTTC A	5520
GGCGATGCTT	CTAAGGCAGA	AATTGTCAAG	TCTCAAGGGG	CAAACGATAT	GCTTCGTATT	5580
CAAGGAAACA	AAGAAAAAGT	TAGTCTCACT	CAGAAATTAA	CTGGCTTGAA	ACCAAATACC	5640
AAGTATGCCG	TTTATGTTGG	TGTAGATAAC	CGTAGTAATG	CCAAGGCAAG	TATCACTGTG	5700
AATACTGGTG	AAAAAGAAGT	GACTACTTAT	ACCAATAAGT	CTCTCGCGCT	CAACTATGTT	5760
AAGGCCTACG	CCCACAATAC	ACGTCGTGAC	AATGCTACAG	TTGACGATAC	AAGTTACTTC	5820
CAAAACATGT	ACGCC TTCTT	TACAACTGGA	GCGGACGTCT	CAAATGTTAC	TCTGACATTG	5880
AGTCGTGAAG	CTGGTGATCA	AGCAACTTAC	TTTGATGAAA	TTTCGTACCTT	TGAAAACAAT	5940
TCAAGCATGT	ACGGAGACAA	GCATGATACA	GGTAAAGGCA	CCTTCAAGCA	AGACTTTGAA	6000
AATGTTGCTC	AGGGTATCTT	CCCATTTGTA	GTGGGTGGTG	TCGAAGGTGT	TGAAGATAAC	6060
CGCACTCACT	TGTCTGAAAA	ACACAATCCA	TATACACAAC	GTGGTTGGAA	TGGTAAGAAA	6120
GTCGATGATG	TTATCGAAGG	AAATTGGTCA	CTCAAGACAA	ATGGACTAGT	GAGCCGTCGT	6180
AACTTGTTTT	ACCAAACCAT	CCCACAAAAC	TTCCGTTTTG	AAGCAGGTAA	GACCTACCGT	6240
GTAACCTTTG	AATACGAAGC	AGGATCAGAC	AATACCTATG	CTTTTGTAGT	CGGTAAGGGA	6300
GAATTCAGT	CAGGTCGTCG	TGGTACTCAA	GCAAGCAACT	TGGAAATGCA	TGAATTGCCA	6360
AATACTTGGA	CAGATTCTAA	GAAAGCCAAG	AAGGCAACCT	TCCTTGTGAC	AGGTGCAGAA	6420
ACAGGCGATA	CTTGGGTAGG	TATCTACTCA	ACTGGAAATG	CAAGTAATAC	TCGTGGTGAT	6480
TCTGGTGGA	ATGCCAACTT	CCGTGGTTAT	AACGACTTCA	TGATGGATAA	TCTTCAAATC	6540
GAAGAAATTA	CCCTAACAGG	TAAGATGTTG	ACAGAAAATG	CTCTGAAGAA	CTACTTGCCA	6600
ACGGTTGCCA	TGACTAACTA	CACCAAAGAG	TCTATGGATG	CTTTGAAAGA	GGCGGTCTTT	6660
AACCTCAGTC	AGGCCGATGA	TGATATCAGT	GTGGAAGAAG	CGCGTGCAGA	GATTGCCAAG	6720
ATTGAAGCTT	TGAAGAATGC	TTTGGTTCAG	AAGAAGACGG	CTTTGGTAGC	AGATGACTTT	6780
GCAAGTCTTA	CAGCTCCTGC	TCAGGCTCAA	GAAGGTCTTG	CAAATGCCTT	TGATGGCAAT	6840
GTGTCTAGTC	TATGGCATAC	ATCTTGGAAT	GGTGGAGATG	TAGGCAAGCC	TGCAACTATG	6900
GTCTTGAAAG	AACCAACTGA	AATCACAGGA	CTTCGTATG	TTCCGCGTGG	ATCAGGTTCA	6960
AATGGTAACT	TGCGAGATGT	GAAACTTGTT	GTGACAGATG	AGTCTGGCAA	GGAGCATACC	7020

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TTTACTGCAA CTGATTGGCC AAATAACAAC AAACCAAAAG ATATTGACTT TGGTAAGACA	7080
ATCAAGGCTA AGAAAATTGT CCTTACTGGT ACCAAGACAT ACGGAGATGG TGGAGATAAA	7140
TACCAATCTG CAGCGGAAC TATCTTTACT CGTCCACAGG TAGCAGAAAC ACCTCTTGAC	7200
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GAGGAAGTAG CTAGCGTTCA GGCAAGCATG AAATATGCGA CGGATAACCA TCTCTTGACG	7320
GAAAGAATGG TGGAATACTT TGCAGATTAT CTCAACCAAT TAAAAGATTC TGCTACGAAA	7380
CCAGATGCTC CAACTGTAGA GAAACCTGAG TTTAAACTTA GATCTTTAGC TTCCGAGCAA	7440
GGTAAGACGC CAGATTATAA GCAAGAAATA GCTAGACCAG AAACACCTGA ACAAATCTTG	7500
CCAGCAACAG GTGAGAGTCA ATCTGACACA GCCCTCATCC TAGCAAGTGT TAGTCTAGCC	7560
CTATCTGCTC TCTTTGTAGT AAAAACGAAG AAAGACTAGT ATTTAGTAAA ACCTCTTAAC	7620
AAGATTACGG AAGCAGTCTC TATCTTTTCC AATGAGGTTT ATAGTACAGA AAAAGCCTGA	7680
GAAGATGTCT TCTCAGGCTT TTGTTAAGCA CATAAATACA ATAGTGCTAT GACAAAAATCA	7740
CCCAGAAAAA TCTGGGTGAT AAATGTTATG GTTGTGCTGG TTGAGGATTC TGATTTTGT	7800
GATCAGGGGT TGTATTTGAT TGTTGCGTAT TATTGTTAGG ATTGGTAGTC GTACTATTAT	7860
TTGTGCTTGG AGTGTTGAG CTAGACTGTG AAGTTGAACT ATCTGATGAT GAGCTTGAAC	7920
TTTCAGTTGA TGGGGGTGTG TGTGGAGCAG GTGAGTTCCA CGTAGAACGA GCACCATTTT	7980
TAAATACGAA TTCTCCATTT CTGTAGAGCC CCTCTGGTAT ATTCCAATCT TCTGGATTGC	8040
TTCTTCAGA CAGGTAGGTC ATCATAGAGC GGTAACTTTT GGCAGCGACC GTAAGGCCAT	8100
TGCCTACAAG TGGTGTGAGA CGGTAGAAT AGCCTGTCCA TACAGCCATT GAATATTTAC	8160
GCGTATAGCC AGCAAATAGT TCATCAGGTG CTACAAATTG AGAGGTCTTG ATGTGGTTTT	8220
CAATTTCTC GTCTGTATAG TTAGAGGTTT CTGTTTTACC AGCCTGAGGG AGCCAAGCAA	8280
GATAGGCATT TCGTCCAGTT CCATAAGTCA AGACTGTTTT CATCATGTCG GTCATCATAT	8340
AGGCTGTCGT TTCCTTCATG GCACGAGTTC CGACATTAGA GAACTCTTTT TCACTCCCAT	8400
CACTAAAGAC GACTTTATGG ATATACATTG GTTTATAGTA AGTTCCACCA TTTGCAAAGG	8460
CAGCGTAAGC AGCAGCCATC TTTTCACTAC TTGCTCCATA TTTTGTGCT GATTCGGTTG	8520
TGTTACTTGA AATGGCATT T GAGTAGTAA TACTTGGGTA GTCGATTCCT AGACCATTTA	8580
GGAAAGTCTT GGC GCGGTTG AGTCCGACCT TGTTTAGAGT TTCCACGGCT GGGACGTTTC	8640
GCGATTGTTG CAGGGCGTAT TGCAAGGTGA TGTGCCCCA GTAGCCCCA TCCCAGTTAT	8700
AAACAGGAGT ATTTGTCCCA GGGTAGTTAT AGGGCTCATC GTGAACGATA GTAGCAGTTG	8760
AATCGTAGAC ACCGTACTCC AAGGCAGGAG CATAGTCTGT GATCGGTTTC ATAGTTGATC	8820



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CCCAGTCGCG	GTTTGTCTCT	ACTGCTTGGT	TAATCCGAA	GGAAACATTA	CTTGACTGAT	8880
GGCGTGCTCC	TAGCTGGGCA	ATGACTTTAC	CGTTAGAAAC	ATCAACAATG	GTAAGCGA	8940
CTTGCAATTC	ATCGTCTGGA	TAGGCAACGT	ATTCGTCTGT	ATTGTAAATA	TCCCACAGAT	9000
GTTTTTGAGC	TTCTTGCTCT	ACATTTGTGT	AGACATCCAT	CCCAGTTGTG	AGTAGGTTAT	9060
AGCCTGTTTC	TTCTTCAACT	TGATTGATGA	CTTCCTTGAG	GTAATTATCC	ATGTAAGCAG	9120
GGTAATTACT	TGCTGATTG	AGACTTTGTA	GTCCATCAGT	AATTGGTGTA	TTGACTGCTT	9180
TCTCATACTG	TTCAGCAGAG	ATGTAGCCTT	GATTTTTCAT	TTCAGATAAG	ACCAAGTTTC	9240
GGCGGTCTTG	GGCTGCTTCT	GGATGTGAAT	AGGGGTCATA	TTGGTTTGGT	GCCTGAGGCA	9300
TTCCAGCCAG	CAAGGCTAAC	TGAGGTAAAC	TTAAATTAT	GAGGTCTTTA	CCATAGTAGT	9360
TTTGAGCTGC	TGTCTGCATT	CCATAGTTCC	CATTAGACAT	GTAGACCTTA	TTTATATAGT	9420
AGGTCAAGAT	TTCTTGCTTG	GTTGCTTTTT	GTTCTAACTG	AATCGCTAAC	CAAGCTTCCT	9480
GAGCCTTACG	AGAAATAGTC	TGGTCGGAAG	TCGAAGTTGA	AAAGTAAGTC	AACTTAATCA	9540
ACTGTTGGGT	GAGAGTTGAT	CCACCTTGGA	GGGAATTGCT	TTGCAGATTG	CGCAAGAAAG	9600
CTCCCAGGAT	ACGGATGGTA	TCAATCCCCC	TGTGGTCGAA	GAAGCGATGG	TCTTCGATAG	9660
AAACGATTGC	CTTAACCAAA	TCTGTGGGAA	TATCATTAGC	TTGGGCATTG	ACGCGGCGTT	9720
CAGAACCCAA	GTCAGCAATG	AGTTGATTTT	TATTGTCGTA	GATTTTACTA	GAAGTTGTTG	9780
CAACTAGTTT	ACTCTCGGAT	AGGCTAGGAG	CCTTGCTAAC	GTAGTAGAAA	AAAACCTCCTC	9840
CGCCTAAGAC	AATGGCTGCG	ATAACCAAGC	TTAAGAAGCT	AATGCTCAGA	TACTTGATTA	9900
GGCGCAGAAT	CGTTGGTTTG	TTCATCTTGT	TTTACCACCT	AATAAATGTT	CTTTGATAAC	9960
ATTGAGATAA	GGAATTTGAG	GGAAGGCACC	AGCCTTGATT	TCATATCCAT	ATTCTCGAAT	10020
ATATTCAAGT	GGCATTGATT	TTTGTCCCTT	ATCTTGATGA	TAGAAGCGAA	TCAAATCGAA	10080
TGCCGGCAAT	AAGTAGGTTT	CTTGCTGAGA	AGAAAAGTGA	AGAAGGACAA	AGCAGATTCC	10140
TTGTTGGGCA	AGGACTTGTT	CCATATGCTG	AATCTGATGT	GGATGAAAAT	TTTTCATCGG	10200
AATCGCACGT	TTTTGTTTTG	TTTCCTTGAC	TTCAAAGTCG	ATGTAATATC	CATTATAAAC	10260
GCCAGAATAG	TCCGTCGTTG	AAGCTTGTCG	AAAATAGGCT	TCAACAATCT	TGGCACGACT	10320
TCGTTGTGGA	TAGTCCACTT	GTACGATTG	AATAGGAGTT	GGTTTCTTAT	GTATAACAGC	10380
CAAGCCCTGA	GACAAATAGT	AGTCGTTGGT	AGCATTGATC	ATCTTTTCAA	AGGGTACCGA	10440
GCTCGAATTC	GTAATCATGT	CATAGCTGTT	TCCTGTGTGA	AATTGTTATC	CGCTCACAAT	10500
TCCACACAAC	ATACGAGCCG	GAAGCATAAA	GTGTAAAGCC	TGGGGTGCCT	AATGAGTGAG	10560

978

CTAACTCACA TTAATTGCGT TGCCTCACT GCCCGCTTTC CAGTCGGGAA ACCTGTCGTG	10620
CCAGCTGCAT TAATGAATCG GCCAACGCGC GGGGAGAGGC GGTTCGCGTA TTGGGCGCTC	10680
TTCCGCTTCC TCGCTCACTG ACTCGCTGCG C	10711

(2) INFORMATION FOR SEQ ID NO: 146:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11887 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 146:

TACATTCATT CCATCGGCTA CTCCATAATA CTTAGATAAA ACCATAGCTG AAGTCGAATA	60
CGGATACTGT AAAGTATTAT CAATTTTAAT CAAATCATCA TTACCGATAA TACTTCTGAT	120
TGCTTTTGGT AGTATGAACC ATACGTTGGT GAAATCTCAG ATAATGAAGA ATCATTAGAC	180
TCTGGACCTT TTTCTAGTGT CTCACTTACC TCATATTCTT CACCCTTACT AGAAATAACA	240
CTCAAAGCAG ATACTGTCGA TAACTGGCTA GCCAATAAAG TACTCGCAAT AATTGAAATA	300
CCCAATTTTT TATAAACAGT TTTCTTCATT ATTGTATCCT CCTAATGTAA TTATAGCGTA	360
CTATTCTAAA TTTCTTAATC TACTATAGAA TCAAGAAATC TACCACCTTC TTAAATACC	420
CTCCATTATC ACATAAACAG GTAAACTTTT CAATTAATGA CTGCGCTTTT CAATCAGCT	480
AGAGTACTT GCTTGCTTCT TTGATACTAA GTTCAGCCAT TCTTTCCTTG TTTTCTCAA	540
TAAAGCATGT TACCCAAGTG GGATTCGTTT TGGAGTAGTC TCGCAGAGTC CAGCCAATGG	600
CTTTATTGAT AAAAAATTCT GTTTGGTTCA AGTTATGAAG GAGAATCTTT TCCATTAATT	660
GAGTATTGGT CTTCTCTTTT CTTAACAAC TGTGGTCAAT AGCGACACGT CTCAGCCAGA	720
TATTATCTGA TAGGCTCCAT TTTTACTCA ATGAAAATCA AAGAGCAAAC TAGGAAGCTA	780
GCCGAGTTG CTCAAAACAC TGTTTGGAGG TTGCAGATAG AGCTGACGTG GTTTGAAGAG	840
ATTTTCGAAG AGTATTAAGA TTATTCTTC TAGTTCAGGG TGTTCATACA CCAAACCTCC	900
TACTACTCGA TCTAGGATAT CTACCGTGT CCACAAGGAT TTTGTCACGA CTAAGTCTC	960
TAGCTTAGGC AAATCGGTTT CCTTTAGATA AGACTGCATT GCTTTCAAAT AGTTAGCAGC	1020
CACATATTGG TATTTTCTAG GATCCTTTTC CCAGCAAGTG TCTGCAAAAT CCCAATCGAT	1080
AATCTTTGTT TTTTTCGCTT CTGGAAAATA TTTTATAGAG TTTATTCTT TCAGGCACCG	1140
CAATACCTAG AAAAGAAAAT TGATGGCGCA TATAGGCTTC CATGGACCTT GCTTTTCTAG	1200
AGTCTTTTGC TGCTTCTAGC TCCTCAAGTA AATCTGCTAA ACTCATCTAA AACTCCTCTT	1260

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GCCCCACCAA	ATGGTGCTGA	AAGGCATAGA	CAGCCGCCTG	GGTACGATCG	CTGACTTCAA	1320
GTTTGGAAG	AATATTGGAC	ACGTGGGTCT	TGACCGTCTT	GAGAGAGATA	AAGAGGTCAT	1380
CTGCGATGCG	CTGATTTTCG	TAGCCCTTGG	CGATGAGTTG	GAGAACATCT	CGCTCACGCG	1440
CAGTCAATTC	TTCATGAAGT	TCCATATGAT	TGCGGTGGTA	TTCAACCTTC	TTGCTAACCT	1500
CTTGCTCAAT	GGCCAGCTCG	CCAGCAGCTA	CCTTACTGAC	GGCATGAAGC	AATTCATCTG	1560
CACTAGAAGT	CTTGAGCATA	TAGCCTTTGG	CACCAGCATC	TAAGACTGGC	ATGATTTTTT	1620
CATTGTCCAA	ATAAGAGGTC	ACAATCAAAA	TCTTGGCTTC	AGGCCATTCT	TTAAGGATTG	1680
CTAAGGTCG	GTCAATCCCA	TTCATCTCAG	GCATGACAAT	ATCCATGACA	ATGACATCTG	1740
GACGCAGTTC	CAAGGCCAAG	TCAATCCCTT	GAGACCCGTT	GGACGCCTCA	CCCACAACTT	1800
CTACATCGTC	TTGGAGGTCA	AAGTAGCTTT	TCAAGCCCAA	TCGGACCATT	TCATGGTCAT	1860
CTACTAGTAA	AATTTTCATC	TTTACTCCTT	TATCATTCCT	TATCTAACAG	GGGAATACGG	1920
ATATCAACCG	CCAGCCCTTG	CTTGGGAGCT	GTCAAGAGTT	GAAGTGTTC	AGCCATATCT	1980
TCAACCCGCT	CCTTGATATT	TCGCAGTCCA	TAACCAAGT	CGTCTAAGCT	CCCTAACTGG	2040
AAACCAATCC	CATTGTCCAC	CACCTTCAGT	TGCAATTCAA	CATCTGTCTG	ATAGAGGTAG	2100
ACATCTAGGC	AAGATGCCTG	GGCATGGCGG	AGGGTATTGC	TAATCAACTC	TTGCAGGATA	2160
CGGAAGATAT	GCTCCTCGAT	TTTCTTAGGC	AATTTCGTCA	TATTCTGCTT	GAGACTAACC	2220
CTAAGATCAC	TCTTGTCCTC	AAGCTCTTTT	AAAAGAATTT	GAATCCCTTC	TATCAAGCTC	2280
TTCTGCTCCA	GTTCAACTGG	TCGCAAATGC	AAGAGCAAAA	CCCGCAAATC	CTTCTGGGCT	2340
GTTTCTAAAA	TAGCTGTGAC	ACTCTGCAAC	TGGGTCTGCA	TCTTTTCTCT	ATCCAATTTT	2400
AAAGCCTGCT	GAATGATACC	CGATAAAATC	ATGTGGGCCG	CAAACAACTC	CTGACTGACT	2460
GTATCGTGCA	AATCCCGAGC	AATTCGCTTC	CGTTCCTTCT	CGATGATTTT	CTCTTCCTGA	2520
GCAAGGCTCT	GATTTTCAGC	TTTTTGAAGA	GCCTCTGTCA	AAAGGTTAAG	TTTACCTGAT	2580
AAGGACTTGA	AACTGGCATC	CAAATCTGGA	TCTGCAACCT	GAACCACTTC	TTGCCCTGCT	2640
AATAAACGCT	TGAGATTAGC	CTGCATTTTT	CTTAGAGAAA	GCTCTTCGAT	CCCTCGCCAA	2700
AACAGGGCTA	AGAGACAGGT	CATGGACATG	CTGAAAACCA	ACAATAAAAA	GACAAATTTT	2760
TCTGTTTTTT	CGACATCGTG	CAAAAAGATA	GACCAGTCAA	AATCAAGTAT	TTCCAGCAAG	2820
CTGTGGGAGA	AAAAAAGAC	AAATAGGAAG	GAGGTGAGAG	CAATAATGAC	ATAGGCTTGT	2880
TTTTTCATCC	TCTAACCACC	TCCACATCAC	CAATCATAGT	GGTCAAGAAA	ATCTTGACAC	2940
TCTTGTTACT	CTTGAGATAG	TCTTTGTTT	CTTGATGATA	GTGTTCAATTG	CGGAGGGCTC	3000

980					
GCTTGGGCTG	GTTGAAAAA	ATCAAATCCC	CATAGAGACA	GTTAACGCTG	AGACTGACTT 3060
CCACATCTAC	AGGTACGATG	ATTTTGGTCG	TTCCCTACCAT	CTTCTGAGG	ATAATGACAT 3120
TGTCATGATT	GGTTAAGATG	ACCCCTCTCCA	GATGAATAGT	GTCCTTGCCC	ATGAAGCGAA 3180
AGAGATTGAT	ATCATCGAAT	TGGCAAGTCT	GGTAGCTTGA	AAAATGATGA	AGATTTCCAA 3240
ACCAACGATT	TTTCTCCTTC	TTAACCGTCA	CGACCTCTTC	AAAAACCAA	TTGGTCTGCT 3300
CTTTTCCTG	GTTTCATCATC	GGGTAAAGAA	GAAAGAGGCT	ATAGATAACC	GCAACAAAA 3360
TAGCTAGAAT	CACAAAAGGA	TTGAGCATAA	CGATGAAAAA	GAAGAGAATG	GTTGCCGCTA 3420
CTAAAAGAAG	ATTATTTCCC	TCTTTACCAG	TGTAGTAGCG	AATCAAAAGC	AAAAAGAGGA 3480
ATAGTATCAG	CAGAAAACGC	GAAAAATGCT	CTGATACCAT	CAAAATCAGA	GCTCCTGTCA 3540
GAAGACAGGC	TTGCATAAAT	AAAAAGATTT	TAAATTTTCT	CATAGGTTC	TCCTCTCCCT 3600
TCTATTTTAT	CACAATTCAA	AAAAGTCACC	TCAGTCTGAG	GATGGAAAA	AGGCGCTGGT 3660
TACGCCTTTT	TCATCTGATC	CTTTGCTTCT	TTTAATTTTC	CATAAAGAAG	ATAGTCTACT 3720
TTTTGTAGAT	CTGCTATGGT	GGCACAGTTA	AGGGAACACA	TAATCAAGCG	TAGATCTGCT 3780
TTCCAGCCTT	GGACAATGCC	AATCACTTCT	TCAACTGTGT	AGGTTTCAAC	CAATCCAGA 3840
ACGGTTCGTG	ACAATCCAC	AGCCTTAGCA	CCAAAAACCA	AGCACTTAAT	CATATCCAGC 3900
GGATTCGGAA	CCCCTCCACT	AACCAAGAGT	TCGACCTTAT	CTTTCCATTC	TTGGGCATTG 3960
AGAAGGGCCT	GCATGGTAGA	CTGACCCCAT	TGATTGAGGT	AATCACGCTG	GCCACTACGA 4020
CGGTTTTTCGA	TATAGGCAAA	GCTGGTGCCA	CCACGACCCG	ATAGGTCCAC	TGTACGAACA 4080
CCGAATTCAT	AGGCTCTTTC	GATTGTCTTG	GCATCCATTC	CAAAGCCAC	TTCTTGAGG 4140
ACAATAGGAA	CGGGAATTTG	CTTGCTATAA	TCTGCTAGAT	GCGATTGCCA	GCTTCTAAAC 4200
TTCTTTCTC	CCTCGGGCAT	GAGTAATTCC	TGCATGACAT	TGACATGCAC	TTGCAATAGA 4260
ACAGGATTC	TCTCTTCTAC	AGTCTGAAGT	CCTAATCTCG	CAGGCTTGTC	CAATCCAATA 4320
TTGGTTCCAA	GGAGGAGATT	GGGATGACTA	GACTTGACAG	AAAAAGAATC	ATCCGTTGGA 4380
TTTTTGAGGG	CTGCGCTATA	AGAACCCGTT	ACAAATAAAA	TACCACAGGA	TTCCGCCACC 4440
TGAGCCAGCT	TTTGATTGAT	TTCTCTTCCC	TTATTACTTC	CACCAGTCAT	GGCATTGATA 4500
TAAAAAGGAA	AGTCCCACTT	TCGACCAGCA	AACTCTGTCT	AAAGATCGAT	TTCATCCAGA 4560
TTGTAAAGAG	GCAAGGAAGA	ATGAATCAGC	TCCACCTCAT	CAAAGCTATT	ATAGGAACTT 4620
TTCTGCTCAA	GGGCATAGAG	GATATGCTCG	TCCTTACGAT	TTGTCGTCAT	GTCTATTCCT 4680
TTCTTGATAT	AAGAGCTCAA	TCCCCAGATC	GGCCCAACGA	TTTTTTAAGG	TTTTGGTTGA 4740
TTGCGCATCA	AAACTCAGGG	CGATGCCACA	GTCACCACCA	CCAGCACCAC	TACTCTTGGC 4800

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AACGGTCTGC	AAATCTTGAC	TGGCTTCTTT	CAACTGTCTA	AGCAAAGGCG	TGTAAATATC	4860
TGTACTCAAG	CCTTCTAAAA	GCTTGCTGGC	TACTTCTACT	TGATCGATAA	TCTTTTCTGA	4920
TTTCCCTGT	TCCAAGGCTT	CTACCAGAGA	AGTCACCGTT	TCTTTTGAGG	AAGTTAAAAA	4980
ATTTTGATTG	ATATTTTGCT	TGATTTGCTG	GACCATGTGA	CTCGATACAG	CCACTTCCTT	5040
GGTCCATCCC	ACTAAGAAAT	CACATTCTAA	AGTTGGTTTC	ACTTGTGAAA	TTGAAAAGCC	5100
CCAATCACGC	TCCAGAACTG	TCGCCAAGTT	TTCTTCTTCT	AACCAAGCAG	CCACCTTCTG	5160
GCGATCAAAT	GACTGGTAGA	GAACCAAATC	CTCTGCCACA	ATACAGGCAA	GGTCGCCCAT	5220
GGAACCATTG	TCTCCTCGCT	TAAGCAAGAC	AGCGCTAGTC	AGCTTGAACA	AGAGCTCCTG	5280
ATCAACAGAA	ACATCATACA	GAGCCAGTAA	AGCCTTGACA	ACCAAGACAA	CGACGCTGCC	5340
ACTAGAACCT	AGACCAAAT	TTTTCCCTTC	TCGTTCCATT	TTGCCACAGA	TTTCTAGAGA	5400
AAAAGGTCTT	AAATTCTGAC	CACGAACAGC	GAGGAAGTCT	CCCATCAAAG	CAATCGTTTC	5460
TTGAATCAAG	CTATAGTCAG	GATTAGGCCT	TAAGTCCACT	GCGAAATCAA	ACATATCTGA	5520
ATAGATACGG	TAGCTGTCAG	AAAAAGCAAT	CTCAGCCCTC	ATATAGATGG	GAATATCCTT	5580
TATCAAAGCT	AACTGCCCTG	GCTCTAAAAT	AGCATATTCA	CCTGCCCAAT	AGAGTTTTC	5640
GCAAGTTTTA	ACAGCAATCA	TCTTGACTCA	AATCCTTTGT	TTTTGACACA	ATCAAGCGAT	5700
AACGATGACC	GAAAATTTCT	GATAAATGCT	CCAAGTCTTT	CTCCTGACAG	AAGACCTTAA	5760
CATTGGGACC	AGCATCCATG	GTAAAGTAGC	AGGCCTCTCC	TTTCTCACGA	AGCTGGCGAA	5820
CAAAGGCCAT	AGCCTCATAA	GAGGCATCCG	TCAGATAAGA	AAAGGCTGGA	CTAGCAGTCT	5880
TTGTTCGTAGC	ATGCATAGCC	AGGGCATTTT	TCTCCGTAA	TTCTCCAATC	TTGGCAAAAT	5940
CATTTTCCTT	GAGATAAATC	AGCATATCCT	GATAGTCCTT	CTCAGACTGA	CGAACCCAGT	6000
CGTCGAAAGT	CGTCGAGGTT	TCCACACAAA	GTTTCATCCC	GTCACGGCTA	GAGATTGGTT	6060
TTTTCTTGTC	CTCTAGCACC	AACATAATCA	TAGCTAGTTT	CAAGTCTGTC	TCTACAGGGT	6120
AAATTCTCTC	ACTATCCTTA	TCCCAGGCTC	CTAGTGGTCC	ATAAAAACTC	CGAGAAGAAG	6180
AACCTGAGGC	AAATTGGGCT	TCCTGTGCCA	ACTGACTTCT	ATCCAATCCA	AGCTTGAAAT	6240
AAGCATTACA	AGCCTTGACC	AGGGCGGACA	AACCACTAGA	ACTTGAGGAC	AGACCCGCTG	6300
CCGTAGGCAT	ATTGTTTGA	GTATCGATAC	GGACAAAGCC	CTCACCAGCT	GGACGATAAC	6360
GGTCAATAAT	CTTACTCATC	TTGGCATGCT	CGACCTCAT	TTGTAGCTGA	CCATTGATGT	6420
AAAATTCGTC	AGCTGTTACA	TTGGCTGGTA	AAGGCGACAA	GGTCGTCTCT	GTATACATAT	6480
TTTCCAAAGT	TAGAGAAATA	CTGCTAGTAG	CAGGCACCAT	CTCTTTTCT	TTTTTCTTTC	6540

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CCCAATATTT GATAATAGCA ATATTTGCGT AGGAACGTAC TGTACAGGC TCTCTATCCA	6600
TGTCTGAACA GCTCCTTTCT CTTCTAATCT TTCTGCTAGT TCTTGTGCGT GTGTCAAATT	6660
GGTTACCAAG GCTATGATAC AACCTCCTAG CCCACCACCG CTCATCTTGG CACCCAGAGC	6720
ACCATGGCTA AGAGTCGTTT CAACCAAAAA GTCTGCCCTCA GGGCTACTGA CTCCAATTTT	6780
TTTTAAATGT AAATGCGCTT GACTGAGGAT TTGTCCCAGT CCTTCAGCAT CTTTTTGTGA	6840
AATCGCAACT TCTGCTTGCT GGGTTAATTC TCCCAAGGCA TGCAAAAACG GTAGGGCATC	6900
CTTGCCCTTA TTTTGAACCA CTTGGATGGC TTCACGAGTA TGACCATAAA CACCCGTATC	6960
GGCAATCACC AAATAGGCGG ATAAATCCAT CTCAAGTTCT GTAAATCCTA CGTTCCTGAT	7020
AAAGCGAATA GGTGGTCAC TAAGACAGGT CTTAGCATCC AAACCACTAG GATTCATATG	7080
GGCAATCATT TCAGCTCGAT TGACCAAGAT TTCTAGTACA TCATGAGGCA GATCAGCCTG	7140
ATAGTAGTCA AATACTGCAC GAATGGCCGC TATGCTGATA GCCGCTGACG AACCCATCCC	7200
CCGTTTCTCA GGGATAGCCG AGTCAATCTC ACAACGAATG CAGGCTTCTG TGATATTCAA	7260
ATACTCCAGT GAGGCATAAA CCGCCATGGA CAAGGTATCC TCCTCATAAA GCGCCAAGG	7320
ACTCTCTGCA GGAACCTACCT TACAGGTCAC CTCACCTCC AAAAGAGGCA GGGAAATGGC	7380
AGGATAACCG TAAACGACCG CATGTTCCCC TATTAAAATT ATCTTACTAT GTGCCTGACC	7440
GACACCAACT TTTTTTGTCA TTTTTTCCTT TTACTAGACG AAAAAACGTC TTATTTTTCA	7500
TACAAGTATT AATTCTTTCC TATCTATTTT ATTATATTTT CACAAAAAAA GCGATTGTTT	7560
CCATTACAA TCGCTTCTTT CATTATTGAA CCCATTGCCC ATTATAGTTG ACAGAATAGC	7620
CATCTACGGT CGTATTCCT GCCAAGGCAC CTGAGCGCTA TAAGCGTAGT ACCATCTGCC	7680
ATTGACCTGG AACCAACCTG TCGTCATAGA ACGACGAAAG AACTCCATA CCATTAAGTA	7740
AAGAGGAAAG TCGTGAGGGA GCATGCGCCA TTGACAACCT GTTTTAGTGA CGTACAAAGT	7800
CTCATTAACA AGTACTCGTT TCGGCCATTT ATAGGTGCGG TGTGTGAGA AATAGGGTTC	7860
AATCTTCGCC CATTCCTGAT CGTTTAAATC AGTATCATAT GCTTTGCGTA TCATAACTCT	7920
AGCTTAACAT TTTTTTGTGA ATACAGGTTC TAAATAATCG ACCACGAAAA TTTCTTAAGT	7980
GGAAAACGCC TTATGAAGTA TGCTACGGGA AAGTTATGCA CTTAATTTGA CAATTCAAGA	8040
TGTAAAAATA TATACTATAG TAGATTGAAA CTAGAATAGT ACACCTCTAC TTCTAAAAATA	8100
TTGTTAGAAA TCGATTTGAC TGCCTGATC GATTTATCCT GTTATTATCT CATTTTACTA	8160
TAATATTTGA TAAGTTATCC TAAAAGTATT ATTATGTTGT TGTGTATAG ATTGATTGAA	8220
TCTAACTAAA GGATCCTATT CAATTACTAG AACTATCACA TACTCAAGGT CAGCTCACAG	8280
ATGAGCAACT ATTTTGTTA CAATGTCTAC TAAATTTAAG TCAAACAAAT AATTTAGTCA	8340

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AAATTAAAAA AATAGAGGAA CATAAATATG ATTACAAAAC AGAATGTAAT AGTGTTCCTAC	8400
AATTTTCTACT AGATAAACT GTAAATTCTG AAGGAAGGAT CACTTCTTCA ACAGAATTG	8460
GAAATTTTCGT AAGTAATTTA TCATTCCAAC ACGGAATAGC TGGACTACTG TTTCTCTTAA	8520
ATAAATTGTA CCCCCAGAA CTGGATTCTA AAATACCTC TATCATCAAG AAGGCAGTGA	8580
CAATTAGAAC GACACACACA TATGAATATC AATACTCACT GCTATTTGGT GATGCAGGCT	8640
ATCTATGGTT ACTCCTACAT TTATTTTCTA TCAGTAAAAA TCAATACTAT CTACAATTAG	8700
CAAACGTCAC CGCTAAAAA TTAATAGAGA ATTATGATAC TCTAGAGGAA ATAGACTTTG	8760
CATTGGGAAA ATCTGGTGTC CTATTATCAT TAATAAAATA CTATCAATTT ACCAATGACA	8820
ATACTCTTAA AATTTTCATC CACAATAGTA TAGGGGAAAT TTATCATTAT TTCCTACAAA	8880
GAGATACAGC CAAAGAAAGC ATTTTAGACT ATAGCTTTGC TCATGGATAT TGTGGAATTG	8940
CATATGCTTT ATTTGCCAT TCTAAAGTCT TAGAACCTTC TATGTTTTAT AATGATCTCC	9000
ATACATTCCA TACTGAATTA AAAAAATTAT TAGAAAAAGT TACTTCTAAT ACTGAAAATT	9060
TAGGAAATTT ACAACTTTCT TGGTGCAAAG GAATTTCCGG AATAATCTTA TATCTTTGTA	9120
TGTACGATTG TGACGGAAAC AAAGATATTA TTAGTAAATA TCAAGAATTT GTTTTAAACC	9180
ATCATCTAAA AATGATGACA GGATATTGCC ACGGAATAAC TAGCTTACTA CAAACCACTG	9240
TCTACAATCA AAACAAATTA CTGATGAAAA AAATCCAACA GGTAATTTTA GCATGTTCTG	9300
AACGAGATGA TCACGGTTTA CTGATGTTTC AAGGAGATAG TGGTAAAGCA GATTTGTTTG	9360
ACTTCGGAAT AGGAAGCATG GGGTATATTG GTGTCTATTA AATAATAAAT TCCCATTCGA	9420
TGTGCAGACA TAAGGAGAAA AGTATGAAAT TATTTTGGAC AAACAACATA TATAGACAGT	9480
TGCTGCTAAA CAGCTGTTTT TCATCATTCG GCGACAGTAT TTTCTACCTC GCCATTATCA	9540
ATTATGTGGC TCAGTACAAT TTCGCTCCGC TAGCGATTTT ACTGATTTCC ATTTTCAGAGA	9600
TGGTTCCCTT ACTATCGCAA CTCTTTCTCG GGATTCTAGG AGATTTTCAA GAAAAAGAG	9660
TCAAACACGC ACTCTGGATT GCCAAAATCA AAATCCTGCT CTACGCTATT TTGACAGTAT	9720
TTCTCGTCTT GTCGCCCTTT TCATTAGTTT CAGTCATTAT GATTGTCATC ATCAACCTCA	9780
TCTCTGACAC CTTGAGCTAC CTGTCTGCCT ACATGATGAA CGCCCTCTAC ATCAGTGTA	9840
TTAAGGACGA CCTGCATGAT GCCATGGGGT TCAGGCAGTC TCTGATGAGG GTTGTCCGTA	9900
TTGTGCGCAA TCTGGCTGGC GCATTCCTTA TCAATGTTAT AAGTATTCAA ACTATTCCC	9960
TTATCAACAC TCTGACTTTT GTCATTGCCT TTTTGGGCCT GTATGTTATT CGACATACCT	10020
TGTATGAGGT TGAAAAAGA ATTGAAATGT CACATACAGC ACTGAGTTT AAGAAATATT	10080

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TTCAACATCT	TAAACAGTCG	CTGGCTGTGC	TCCTGAGGTT	AAAAGATACC	GTCATACTAC	10140
TGTTTCTGAC	GACCAATATG	ATTGCCATCT	TGGATGTGTC	CCCTCGGCTG	ATTGCCCTCC	10200
GCTTCATCCA	ACAGACACTA	GCACAACTGA	GCATTGGGCA	ACTCCTCGCC	CTGCTCTCCA	10260
TCATCATGTC	TTGTGGAGCT	ATCCTTGGCA	ATATGACCAG	CAGTAATCTA	TTTAAAAATA	10320
TCCGTTTCAC	GCACCTCTTG	GTTTTCTGTG	AGATTTCCTT	ATTGACTCTA	ATAACTAGTA	10380
TCCTTTGTCA	AGCCTATATC	GTAATTTTCA	TGACCAGTTT	CATCAGTTCT	ACGATTATCG	10440
GCATTCTCAG	CCCTCGCCTA	CAAGCAGCTG	TCTTTGCCCA	TATCCCCAGT	GACAAGATGG	10500
GGACGGTGGG	CTCTGCTCTG	AGCACAGTGG	ACATTCTCGC	CCCGTCCCTG	CTCTCCCTAT	10560
TAGCCCTATC	CATAGCATCG	GGCGTTTCGG	TGCAGTTAGC	ATTGATATTT	TTGTATCTTA	10620
TTTTAATGTC	TCTTATCTTT	TGTCAATGGT	TAGTCAAGTT	CAACACTCAT	AACTAACGAA	10680
AAAGCATGTG	TAGATTTCAC	ATGCTTTTAA	TCTCCCCAAT	CGTCAGGTCA	AGTACAACAA	10740
AGTCACTTCT	TTGATTAAGC	GAGTGTCTTA	ATATAATTAT	AAGCGCCCTG	TCATTACCGA	10800
ACCCATTTCG	CATTATAGTT	GACAGAATAG	CCATCTACGG	TCGTATTCAC	TGCCAAAGCA	10860
CCTGAGCTAT	AAGCATAGTA	CCAGTTGCCA	TTGACCTGGA	ACCAACCTGT	CTTCATGTCT	10920
CCATTACCTG	CATTTAGGTA	GTACCAAGTT	GAACCATCTT	GATACCAACC	AGTTGCCATA	10980
GCTCCTGATG	AACGGAGATA	GTACCATTTG	TTCCCAAGGT	TTTGCCAACC	TGTTTTCATA	11040
TCGCCATTTG	GGTGGTCTAA	ATAATACCAA	GTGGTACCTT	CCTGATACCA	GCCAGTGGCC	11100
ATTGCTCCTG	AGGAACGGAG	GTAGTACCAC	TTATTACCTA	GATATTGCCA	ACCTGTTTGC	11160
ATAATACCAG	TTGTTGGATC	TAGGTAGTAC	CAAGTCGAAT	CATCGTTTAT	CCACCCCGCA	11220
CGTCTTTCAC	CACCAAGGTA	GTTTTCTCCA	TTAATTTCCT	TCTTAGCTAG	ATAATACCAG	11280
TTAGACTGAT	CATAAAGCCA	ACCTGTCTCT	AAAGAATGAT	TTTGATTAAA	GTAATAGTTC	11340
GTATAATAAC	GCTTCTCTTC	TTTATCTTCT	GAATCTTCAC	GTTTTTCCCC	GTAATTCTCT	11400
CCAACACTGT	CTTTAGTTTT	AATCTCTAAT	GTTTTCCAAC	CAACAAACTC	TTGTAGCACT	11460
CCATTTTAT	CGAAGTAGTA	CCACTCTGAC	TTTGGAAGAA	CTTCTAATCT	GATACCATT	11520
GGGTAAGGAC	CAATTGTACT	ACCTTTAGAT	GGAAACGGGA	TATATTGCCA	GCCGACAACC	11580
ATCTCTCCAG	ATAGAGAATC	AAAATAATAG	TACTTACCAT	CAATCACTCG	CCAGTAGGTT	11640
TCTTTGAGGT	CCCCCTTTTT	GTAGTAGGTT	CTTCCGTTTT	CTTGACAAA	CTGCCATCCT	11700
TCAGAATCAT	CTGCAAATAC	TGTACTGGTC	CCTAGCAAAC	CAAAGAAAAA	TACTGTCAGT	11760
CCAACCTGCA	TAGTTTTTTT	CAAAATTTTC	ATCTATATAC	CCTCCAATAT	TAAATCCACT	11820
CACCAGATGA	GGCGAAATTA	TAACTTTTAC	CATCGATAGT	TTGGCTACCT	GTAACCATTG	11880



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CTCCAGG

11887

(2) INFORMATION FOR SEQ ID NO: 147:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 11340 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: double  
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 147:

CCGGTATGTT CTGGAATACT ACCAATCTAA GCTGGCTGTG CCCTACAGTT TTACAACCCCT	60
GTACGAATAC CTTAAGGAAT ATGACCGATT TTTTCAGCTGG GTTTTGGAGT CTGGTATTTTC	120
AAACGCTGAT AAAATATCCG ATATTCCTTT ATCAGTTTTC GAAAATATGT CTAAGAAAGA	180
CATGGAATCC TTTATCCTTT ATCTACGTGA ACGTCCCTTG CTGAATGCTA ATACAACAAA	240
ACAAGGTGTT TCACAGACAA CTATCAATCG AACCTTATCA GCACTTTCTA GTCTTTACAA	300
GTATCTAACC GAGGAGGTG AAAACGATCA GGGGGAACCT TATTTCTATC GTAATGTAAT	360
GAAAAAGTT TCCACCAAGA AAAAGAAAGA AACCCTTGCT GCCAGAGCTG AAAATATCAA	420
GCAAAAACCT TTTCTAGGTG ATGAAACAGA AGGTTTCTA ACTTATATCG ATCAAGAGCA	480
CCCACAACAG CTTTCAAATC GAGCTCTCTC ATCATTC AACAAAAAAG AACGAGATTT	540
AGCCATTATT GCCCTTCTCT TGGCATCTGG TGTTTCGCTTA TCTGAAGCTG TTAATCTAGA	600
TCTAAGAGAT CTCAATCTAA AAATGATGGT TATTGATGTT ACTCGAAAAG GTTGCAAACG	660
TGACTCAGTC AATGTCGCTG CTTTTGCTAA ACCTTATTTA GAGAATTATC TGGCCATTCG	720
GAATCAACGC TATAAAACCG AAAAAACAGA TACAGCCCTT TTTTAACTC TCTACAGAGG	780
TGTTCCCTAAT CGTATCGATG CTTCTAGCGT TGAGAAAATG GTTGCTAAAT ACTCAGAGGA	840
TTTTAAAGTG CGTGTAACAC CCCATAAACT GCGCCATACA CTAGCAACTA GGCTCTATGA	900
TGCGACTAAA TCACAAGTTT TAGTCAGTCA CCAACTAGGA CATGCTAGCA CACAAGTCAC	960
TGACCTCTAT ACCCATATTG TTAGTGATGA ACAAAGAAT GCTCTGGATA GTTTATGATT	1020
TTACGTATTT TAAATTATGT AAATAAATAT CAAAAAAGA AGTTGGCCAA CTTCTTTTTC	1080
ATTTATCCAA CTACCGCTTC AGCGATTTC TCACGGCTAA TACCAGCGAA GTAGCGTGTG	1140
ATATCAATGG TTTTTCAGCG CTTAAGAACA TCTTCGCGTT CGTATTTTAC CCCACGAAGG	1200
ACATCTTCTA CTGCAGCAAC GTCTTCAATA CCAAAGAAGT CACCATAAAT CTTGATGTCT	1260
TGGATTTTTC ATTCAGTAAC GTTAGCAAAG ACTTCAACCT TACCACTAGT GAATTTGATT	1320

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CCACGACGGA	CGTTAAATTC	AGGTGATTTA	CCATAGTTCC	AGTCCCAAGT	TCCAAACTTA	1380
GTATCCTTGA	TGCGATTGAT	TTCGGCCAAT	TCTTCTTCTG	AAAAGACGTA	TTCAGTCATC	1440
TCTGGGTACT	CTTTTTCAT	GTATCCAAG	AGTAAATCAC	GGAATTTTTC	GA CTGTGATT	1500
TTTTTTGGTA	ATTCATTGAT	AATATTGGTT	ACACGGGCAC	GGACGGATTT	CACACCTTTT	1560
GATTCAAATT	TATCTTTTGA	AACCTTAAGG	GCATTTGCGA	GGACTGACAA	ATCAACGTCA	1620
AAGAGCAAGC	AACCGTGGTG	CATGATACGG	CCGTTGATAT	AGGCTTGGGC	ATTGCCACAG	1680
AACCTCTTAC	CATCAATCTC	AAGGTCATTA	CGACCTGTGA	ACTCAGCTTT	AACCCCAAGT	1740
TGAGCCAGGG	TATTGATAAC	CGGAGTTGAG	AAGCTCTTGA	AGTCAAATGC	CTTATTTTCA	1800
TCTTCTTTGG	AGATGATCGT	G TAGTTGAGG	TTATTTAAAT	CGTGGTAAAC	AGCTCCACCA	1860
CCACTAATAC	GGCGAACTAC	CTCAATACCA	TTTTCGCGAA	CATAATCACG	GTTGATTTCT	1920
TCGATAGTGT	TCTGGTGACG	ACCAACAATG	ATAGATGGCT	TGTTAATCCA	AAGTAGGAAG	1980
ATTTGATCCT	CATCCAAAAG	GTGTTTAAAG	GCGTATTCTT	CCAAGGCAAT	ATTAAAAGCA	2040
GTGTCATTTG	AATGATTGAT	AATGTATTTT	ATGATATCCC	TTTACTTTAT	ATGATAGAAA	2100
CTGGAAATAA	CCTTCCAGTC	TAATCTATCT	TCGTTTATTT	TTTTCTTAGG	TGAATGGATG	2160
GCCATTCCTA	GAACATCTGC	AAACGCTTCG	TACATCACTT	CAGAGTAAGT	TGGGTGCCCCG	2220
TGGATGGTCT	TCAGCATTTT	CTCAACAGTG	ATTTCCATTT	CGATGATGCT	TGATGCTTCG	2280
TTTATTAATT	CTGCGGCTGC	AGGACCAATA	ATGTGTACAC	CAAGGATTTT	TCCGTATTTT	2340
TTATCAGCGA	TAACTTTAC	GAAACCTTGA	GCTGCGTCAG	ATGCAATAGC	ACGACCGTTA	2400
GCAGCAAAGT	TAAACTTACC	GATGGCAACA	TCGTATTTCT	CACGGGCTTG	TTCTTCTGTC	2460
AAACCTACTG	CTGCTACTTC	AGGGAGAGTG	TAGATGGCTG	CAGGAGTCAA	ATTCAATTTG	2520
GCAACTGCAT	GATTTCCCTT	AAGGGCATTT	TCAGCGGAAA	CTTCACCCAT	GCGGAAAGCT	2580
GCGTGAGCCA	ACATCTTAGT	ACCGTTGATG	TCACCTGGTG	CATAAATGCC	TGGAAGTGAA	2640
GTTTCCATGT	ATTCGTTGAC	CTTGATACAA	CCACGATCCA	ATTCAAACCT	AACCTCTCTA	2700
ATACCTTCAA	GGTCTGGCAT	ACGACCAATT	GAAAGAAGAG	CTTTGCTTGC	GATGATATCG	2760
TCTTTTCCTT	CAACCTTGAT	ACGAAGTTGA	CCATTTTCCT	CAATGATTTT	TTGCAGTTTA	2820
GTACCAGTCA	AGATGGTCAT	TCCTTTACGC	TCAAGAATCA	AGCGAAGGTT	CTTAGAAACT	2880
TCCACATCCA	TAGCTGGAAC	TATACGGTCC	ATCATTTTCA	TAACAGTCAC	TTTGAACCA	2940
AATGTCATGA	AGGCCTGACC	GAGTTCGATA	CCGACAACCT	CACCACCGAT	GATAACAAGG	3000
CTTTCTGGCA	CTTCGTTTCT	TTCAAGAATG	TCATCACTAG	TCATGACAAG	TGGAGATTCC	3060
ATACCAGGGA	CGTTGATCTT	GTTGACTTTT	GAACCACCAG	CAAGAATGAT	TTTCTTGGTT	3120

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TCAAGCAATT	CAGAACCATT	TACCAAGACG	TTCTTGCTCT	TAGTGATTGT	ACCAATTCCT	3180
TTATGAACAG	TAACCTCCGT	GCTACGAAGA	AGTCCTGCAA	CACCACCAAC	AAGAGTATTA	3240
ACAACCTTAG	ATTTAGTTTC	TAAAAGTTTT	TCCATATCAA	CAGTGAAGTT	AGGATTTTCA	3300
ATCACGATAC	CACGATTGTC	AGCATGACCG	ATATTTTCAA	TAATTTTCAGC	GTTATGAAGG	3360
TAGGTCTTGG	TTGGAATACA	TCCACGGTTT	AAGCAGGTTC	CACCAAGTTC	AGATTTCTCA	3420
ACAAGGGCAA	CCTTACCGCC	GAATTGGGCA	GCTTTAATGG	CTGCAACATA	ACCAGCAGGA	3480
CCTCCACCAA	TCACAACGAT	ATCAAAAGCA	TCATCGCTCT	TACCATCATC	GTTTGAGGTA	3540
CTTGCTACAG	GTACAGGGCT	AGCTTCTGGC	GATGCTGCTC	CAGCTGTTGG	GATGTTTTC	3600
CTTCTTTCAC	CAAGGTAAAC	GATAACTTCC	GTTACAGGGA	CAGTTTCACC	ATCTCCTTTG	3660
AGAATGGCAA	TCAAGTACCC	ATCTTCTTCG	GCTTCCAATT	CCATGCTGAC	TTTATCAGTC	3720
ATGATTTCCA	AAAGGATTTT	TCCTTCTTTT	ACAAATCTCT	CGACTTTTTT	ATTCCATTGG	3780
ACGATTTGTC	CTTCTGTCAT	ATCCACGCCG	GCTTTTGGCA	TAATTACTTC	TAAGGCCATG	3840
TCTTCCTTCC	TTTATCTATA	TCTTAAAAAT	GAATACTCTT	GCTCTTAAAT	TAACATTGAG	3900
ATTGGCGTTT	CAATCAACTC	TTTCAAGTCC	TTCATAAACT	TAGCACCAGC	CATACCATCT	3960
ACGACACGGT	GGTCAATGGT	TAATCCTAAA	CTCATGATTG	GGCGAATCAC	AATTTACCCA	4020
TTGACGACAA	CTGGCTTCTC	GATTGTGCGA	CTGACACCAA	GGATAGCTGA	GTTGGGTGG	4080
TTAATAATCG	GACCAAAGGA	CTGAACACCA	AACATTCCCA	AATTACTGAT	TGTGAATGTT	4140
GAATTTTGTA	ACTCACTTGG	AGCCAATTTA	CCATCCAAGG	TACGGCCAAT	AACATCCTTA	4200
AAGGCTACAA	CCAGTTCTGA	AAGACTCATC	TTCTCAGCAT	TGTAAACAAC	AGGTGTCATC	4260
AATCCATTAT	CCATCCCAAC	TGCCATGGCA	AGATTGACAT	AGTTGTGAGT	GATAATAGTC	4320
TTGCCATCTT	CTGTCAATGA	AGCGTTGATG	TATGGGTGTT	TCATAAGAGT	CTTAACAACT	4380
GCAAGCGAAA	GAAGGTCTGT	TACAGTAGTC	TTCTTCCCAG	TTGCTTCCAT	GATTGGCTCA	4440
AGAACCTTCT	TACGAAGAGC	CAACATTTCA	GTCATATCAA	CTTCAATAGT	GAGGGTGAAG	4500
GTTGGCGCAG	TCAAGTAAGA	TTCAACCATG	CGTTGGGCAA	TAACCTTACG	CATTGGTGTC	4560
ATTGGAATAC	GCTCGATTTT	ACCATATGGT	GTTACGTTAT	CAGGGACTTC	TTCCACTTTT	4620
TCAATCTGAG	CAGGAGATTT	GATGCTATCG	TTTTCGATAT	TTTCAGGAAG	CAGGGCCAAA	4680
ACATCCTTCT	TCATGATTTT	ACCACGATGA	CCGGTTCCTT	GGATTTCCCTG	CCAAGCAATG	4740
TTATGTTCTGA	GGGCAATTCG	TTTTGCAAGT	GGCGAAATGC	GAACCACGTT	TGTGTCCTTA	4800
TAAGTTTCCA	CGTCTTCTTT	GTGGACACGA	CCGTTTGCAC	CTGAGCCAGA	AACGTCGTAG	4860

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AGGTTTATCC CTAAATCATC CGCTAACTTT CTAGCTGCAG GAGTCGCTCT TAGCTTGTC	4920
TCAGCCATGA CCTCTCCAAT TCTATTTATG ATACAAAGGG CGTCAAAAGC GACTGAAAAA	4980
TAGGAAATCG ACGATGGCTT CGATGAAGCC AAGGAGATTT ATCTTTTTC CGATCTTTTA	5040
CCCCGTGCTC TAATCTAAGA TATTAATGAC GAAGAGCTCT GCACCTAAAA GATACAAAGT	5100
TTCTCGTCAG CTTTATTTTA TTTACATAAC TTATCTTATG TAACCCTATT CTTTGTATA	5160
AGTTTTTCGG ATTGCATCTT TGATACTTTC AACTGTTGGA ATCATGTCAT TTTCTAGGTT	5220
TTGTGCATAA GGCATCGGCA CATCTTCTCC TGCACAACGG CGAATTGGTG CATCTAGATA	5280
GTCAAATGCT TCTGATTCTG AAATAATAGC TGAAATTTC CCGATATAGC CACTTGTTTT	5340
GTGGGCATCG TTGACCAGAA CAACCTTACC AGTCTTCTTC ACTGAGTTTA TGATGATATC	5400
CTTATCAAGC GGAACAAGGG TACGTGGGTC AACAAATTTC ACTGAAATTC CTTCTTCTGC	5460
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ATCCGTTTCTT TGGCGTTTGA TTTCACCAAC CCCAAGTGGA ATTGTGTAGT CTGGATCAAC	5580
TGGCACTTCC CCTTTTTGGT TAAATTCTGA CTGTACTCA AGTATAATAA CTGGGTGTT	5640
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GCCAACTCCG TTACCAGCTG CACAACGAAC AGTCATTGGA ACCTGACCTT TACCACCAA	5820
CATGTAACGT GTTTTAGCAG CTTGGTTGAC GATATTGTCC ATGGCAATAA CAGAGAAGTC	5880
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CATTCCAACA GAAGTACCGA AGTCTCCTCC GAAGACACCG ACGTCTTCTC CCATCAAGAA	6060
CACATTTTCA TCGCGACGCA TTTCCTCAGA CATAGCAAGG ATAATGGTGT CACGGAAGGA	6120
CATGTGTTTT GTTTCCATTT TATCTCTTTC TCCTTAGTCT GCGTAAATAT CTTCAAAGGC	6180
TGATTCAAGC GGTGGGAATG GGCTTTCCTC TGCAAATTTA ACAGAAGCTT CTACTGCTTC	6240
CTTTACTTGC GCTTGGATTT CTTCCAATTC TTCGGCACTT GCAATGTTAT TTCAATAAG	6300
GTAATTGCGG AGGTTTTCGA TTGGATCTTT TTGTTTCCAC AATTCCACTT CTTACGCGT	6360
ACGATATTTA CCAGGGTCAG ATGATGAGTG ACCGAGCCAG CGATAAGTTA CACTTTCAAT	6420
CAAGACTGGA CCATTGCCAC TGCGAACATG GTCCACAGCT TTCTGAAATC CTTCATAGAC	6480
ATCGATGACA TTGTTACCGT CTTGATGAA CATTCAGGA ATTCCATAAG CGGCGCTACG	6540
TTGATGGATA TGTTCTATAT TGGTCATTTT CTTGATATCC GCAGAGATAC CGTAACCGTT	6600
GTTAATGCAA TAGAAAATGA CTGGCAGGTT CCAGATAGAA GCCATGTTCA CTGCTTCGTG	6660

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GAAAACACCT TCATTGGTCG CACCATCTCC AAAGAAGCAG ACAACGATTT TACCGGTATT	6720
TTGCATTTGC TGA CTGACCGGAG AGCGATCCCC ATACCACCAC CTACGATACC	6780
ATTGGCACCA AGGTTCCCAG CATCAAGGTC AGCGATATGC ATAGATCCAC CTTTCCCTTT	6840
ACAGGTTCCA GTGTATTTAC CAAGGATTTT AGCCATCATT CCGTTGAGGT CAATCCCTTT	6900
AGCAATAGCT TGCCCGTGTC CACGGTGGTT TGAGGTAATC AGATCATCTG GATTGAGAGC	6960
TAACATAGCC CCCACGTTAG CTGCCTCTTC ACCAACAGAA AAGTGCGTCA TTCCTGGCAC	7020
TTTCCCTTTC TTTACTAATT GTGCAATTTT TAAGTCCATG CGACGGATTT CTTCATCTT	7080
ACGGAACATT TCTAGCAAAA GATTTTTATC TAAAGTTGAC ATCTTCTTGC CTTTCTAATT	7140
TTCTTCTTAC CTTACTATTT TACCGCTTTT GGCAAATACT GTCAAAGTTT TTCTAAAAGA	7200
AATTTACAAA AATAAAAAAG AAAACCCCGT GAAAACAAGG GATTTTCTTG TCAAGAATAT	7260
TTTTTCACAA ACTTTTTAGC ATTTGGATTT TGCTAAAGAT TCAAATCTCT TCATAATCAC	7320
AGTTAAACGC CAACGGTAGA GCGCCCGCT CACAATCAAA CTAATAATCA AGCCGATCCA	7380
GTAAGAATAA GCTCCAAAAT CTGTTAGGGA ATCAAATAGC GTATCACAGG GATTGCTACG	7440
CCCCAATAAC CAAGCAAACC AAGGTAAAAA GGAATAACTG TATCCTTATA CCCCCGAAA	7500
ATTCCCTGAA GCGGCGCCGC AAAGGTATCT GCTAACTGGA AGAAAAGACT ATAAGTTAAA	7560
AAACGCACTG TCAAATCGAT AAATTTTGGG TCGTTACCAT AAAGACTGGC CACATTTCCC	7620
CTAAAAATGT AAAGGAAGGT TAAGGTGAAG GCCGCAAAAA TGAGGGCAGT CCATCTTCTT	7680
AGACCAATAT AGGTTTTTCG ATCATCAAAT CGCTTGGCTC CCACTTCATA GGAAACGACA	7740
ATAGCCATAG CCGATGAGAT ACTCATAGGA AAGGCGTACA TAAGACTTGA AAAGTTCATA	7800
GCTGACTGGT GACTAGCTAT AATCAAGGGC GAAAACCTTAG CCATAATCAA GCCAACCATT	7860
GAAAAGATAG CCACTTCCGC GAAGACAGTT CCCCCAATAG GCAGACCTAA ACGAACTCCT	7920
TCCTTAATTT TATCCATATT AAGTGGAATT CGTTTCTCAA GGTGTAAGGC TTTGAGCTTC	7980
TCCTGTTTAA ATAAAACCAG AACAGAAATC CCAAGCAAGA CCCAGTAGGC CAAGGATGTT	8040
CCTAAACCAG CACCAGCCCC TCCCAGTTCT GGAACACCAA AGGCACCGTA AATCAAGAGA	8100
TAGTTAAATC CGCTATTGAG AGGGAGTAAC AAAAGCATGA GTTACATGGA CAGTTTGGTC	8160
AAGCCCAGCG AATCCAGCAA GGAACGAATG ACGCTAAAGA GCAACAAGGG GATAATCCCG	8220
ATAGATAAAA ACCAAAGATA GCGAACCGCT ACTGCCGCTA CTGCTGCTTC TAACCCAATA	8280
TGATTCAAGA TTATTGGTGC CAAGAAAAGT ACCATCCCCA GCAAGACCAC AGATAGGCCC	8340
AAGGCCAAAT AAATAAATTG GTAAAAATCA GACGCAACTT CTTCTTTTTT GCCTCGACCA	8400

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AGATGGTGAC	CAATGATAGG	CACCAAGGCT	GACACAATCC	CTGTTAGAAA	TGTAAAGAAA	8460
GGATTCCAGA	TACTGGTTGC	CATAGATACA	CCAGCCAAGT	CCATAGTGTT	GTATTGACCT	8520
GTCATTGCAG	TATCAACAAA	AGAGGCAGAA	TAATTGGCAA	ATTGGTAGAT	CAGGATTGGG	8580
AAGAAAATTT	TTAAAAATAA	TACTAACTTC	TCTCGTAAAC	ACTTTGTCTT	ATACATACTT	8640
CTCTTCTAT	TCTGATTTAT	CTAAACCAA	GAGTTTCAGA	CCATAGTTTT	TCAAACCTAG	8700
CGGAGGTTTA	TTAGATTTTG	AAGTAGTATG	CCAACACGCA	CATGTACGAC	AATAATAGCT	8760
TCTAACTAAA	CCTCCGTTAT	CATATTGAAC	CGCATGGTCA	GCTTTTTCTT	TAGTTTCATA	8820
TTGAATTTTG	GAACGATTAG	CTGCGGGACA	GTAAATTCCA	CTATTAGATT	TCGCTTGTCT	8880
CTCCCTACGT	TTTCGAAAAT	AATTCATATT	CTAACTCCTA	TCAAGCTTGA	TAGACGATTT	8940
GTCCCTTACA	GATGGTATAT	TTAACCTGCC	CTTTTAAGGT	TTCAACCGATG	AATGGTGAAT	9000
TAGCTGCTTT	GGAAGCAAAA	TGGGAGTCCA	CAAAGCGGTC	AGCCTTGGA	TCAAAAATAG	9060
TGATATCTGC	TGGACCATTG	TCAGCCAAGT	AACCTGCTTC	AAAGTTGTAA	AGCTTGGCTG	9120
GGTTGTATGT	CATTTTTTCA	AGTAATTCCA	TCAAGCTCAA	CTCACCAGCT	TCTACTAAAT	9180
AGGTCAAGCT	GAGAGACAGG	GATGTTTCTA	AGCCAGTCAT	ACCAGATGGC	GCTTTGGTAA	9240
TATCCTCAAC	ATTTTTTTCA	TCTACATGAT	GAGGCGCGTG	GTCAGTCGCA	ATAACTGTGA	9300
TGACACCTGA	TTTGAGACCT	TCGATAACGG	CACGACGGTC	TGATTCCAAA	CGAAGCGGTG	9360
GATTCATCTT	AGCATTGCTA	CCTTGCTGTA	AAAGAAGTGC	TTCTGTCTTA	GAGAAATGCT	9420
GTGGCGCTAC	TTCTGCTGTG	ACTTCTGCAC	CTAACCCCTG	AGCAAACCTC	ACTACTTTAA	9480
CACTTCTTTC	CTTAGACAAA	TGCTGGATGT	GAACATGGGC	TTTAGTTGCA	TAGGCAATCA	9540
TGACATCAGC	CGCCATCATA	GCGTACTCAG	CCACCCAGT	AGCACCGCAG	ATATGGAAAT	9600
GTTCTCTAGC	AATATTTTCA	TTAAAGCCAA	GAACACCGTT	CAAACCTGGA	TCTTCCTCAT	9660
GAAGGCTGAT	AAAGGTATTG	AGTTTTTTGG	CTTCCTCCAT	GGCTTCCTTG	ACAATCTTAC	9720
TGCTCTCAAG	CGGAATACCG	TCATCAGAGA	AACCAACCGC	ACCAGCTTCT	AAGAGTGCTT	9780
TAAAGTCAGT	CAAGTTTTTA	CCATTAAAGT	TTTGTAGTAAT	GGTCGCAACT	GTCTTGACAT	9840
TAATCTTCTC	TTTGGCAGCT	GACTGGAGAA	CTGCTTGCAA	AGTCTCCACG	TCTGAAATGG	9900
TTGGACTGGT	ATTAGCCATC	ATGACGACAG	TAGTAAACC	ACCTGCAGCG	GCTGCTAGGG	9960
CACCAGTATG	AATGTCTTCT	TTATGTGTTT	GACCAGGTTC	ACGGAAATGA	ACATGAATAT	10020
CGACCAAGCC	AGGAGCAACC	ACAAGACCAG	TAGCATCAAT	CGTTTCTGCT	CCTTCTTCCG	10080
TGATCTCAGA	CGCAATTTTG	ATAATTTTCC	CATCTTGAAC	TAAGACATCA	CAAACCTGAT	10140
CCAAACCAGA	CTTGGGATCC	ATTACACGAC	CATTTTTGAT	TAGTAGCATC	TGCTTCTCTC	10200

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TTTATTCATA GAAATCAACT TGGGTATCCA ACAATTTATC CCCATCATAA ACAAACCTGG	10260
CTGAAAAGAA GGGTTTATCC TCTAAAAGCC ACTCAACAAA GGTGTGGTCA CCTTCCCAAG	10320
TCGGCTTGCT CAAAACCTCA TCATAGGGAA CCCATTCTAG CGTCCCCTCA TTGCAGTCAA	10380
TCAAGTCGCC CTCAAACTCC GTCACCTTAA AAACATAGGT GTACCAGTCT AAATCTGGTG	10440
TAAATTCAGG AAAAGTGATG ACACCTTTTA GAACTGGCTT GGCTTTGAGC CCTGTTTCTT	10500
CAAGGATTC ACGCGCCGCG CATTCTGGG GCGTCTCTCC TCTCTCTAGC TTACCACCCA	10560
CACCAATCCA TTTCCCTTCA TGGACATCAT TGGGTTTCTT ATTACGATGG AGCATGAGCA	10620
GTTCTTTCCC ATTATCAATG TAGCAAATCG TCGCTAACTG AGGCATATTT TCTCCTTATC	10680
TAAGCCAATC GATTGGCTCT TGTCTGTCT CTTTAAAGAA TGCATTGGCC TTGGAAAAGG	10740
GCTTGGAACC CCAAAATCCT CTATAAACCG ACAAAGGACT TGGATGGGCT GATTGATAA	10800
TCAAGTGATG AGGATTGGTA ACTAATGCCT TCTTCTTACG TGCATAAGCT CCCCAGAGTA	10860
CAAAAACGAC TGGTCTATCT AGATGATTGA CCACCTGAAT CACAGCATCA GTAAAAGGCT	10920
CCCAGATTG ACCAGCATGA CCATTGGCCT GTCCAGCAGG AACAGTCAAA CAAGCATTA	10980
GAAGCAAGAC TCCTTGCTCA GCCCCAGCTG TCAAATCATG AGATTTCCTTA ACTCCGATAT	11040
CATCTGACAA TTCTTTCAAG ATATTTTGCA AGGATGGTGG AGCTGGGATA GAGTCAGGTA	11100
CAGAAAAACT CAAGCCCTGC GCTTGACCTG GTCCGTGATA GGGGTCTTGC CCTAGAATTA	11160
CCACCTTAAC TTCTTCAAGC AGTGTGTCA AGAGAGCCTG AAAAACCTTT TCCTTGGGTG	11220
GATAAATAAT CCCCTGAGAA TAGACCTGCT CCATAAAGT ATTGATTTTC CCGAAATAAC	11280
CCTCAGGTAA TTGCGCCTTA ATCAAAGCAT GCCAAGACGA GTGTTCCATA GCCGACTCGG	11340

(2) INFORMATION FOR SEQ ID NO: 148:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12127 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 148:

AAAAAATAGA CTTGTTAGAC TATAAATGTA GTAAGCCTAC ACAAGAAAAA TACATAGAGA	60
TAAAGGTGAT TATTATGAAA TTCAAAAAAA TGCTTACTCT TGCAGCCATT GGCTTATCAG	120
GATTTGGGCT TGTTGCCTGT GGCAATCAGT CAGCTGCTTC CAAACAGTCA GCTTCAGGAA	180
CGATTGAGGT GATTTACGA GAAAATGGCT CTGGGACACG GGGTGCCTTC ACAGAAATCA	240

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CAGGGATTCT	CAAAAAGAC	GGTGATAAAA	AAATTGACAA	CACTGCCAAA	ACAGCTGTGA 300
TTCAAAATAG	TACAGAAGGT	GTTCTCTCAG	CAGTTCAAGG	GAATGCTAAT	GCTATCGGCT 360
ACATCTCCTT	GGGATCTTTA	ACGAAATCTG	TCAAGGCTTT	AGAGATTGAT	GGTGTCAAGG 420
CTAGTCGAGA	CACAGTTTTA	GATGGTGAAT	ACCCTCTTCA	ACGTCCCTTC	AACATTGTTT 480
GGTCTTCTAA	TCTTTCCAAG	CTAGGTCAAG	ATTTTATCAG	CTTTATCCAC	TCCAAACAAG 540
GTCAACAAGT	GGTCACAGAT	AATAAATTTA	TTGAAGCTAA	AACCGAAACC	ACGGAATATA 600
CAAGCCAACA	CTTATCAGGC	AAGTTGTCTG	TTGTAGGTTT	CACCTCAGTA	TCTTCTTTAA 660
TGGA AAAATT	AGCAGAAGCT	TATAAAAAAG	AAAATCCAGA	AGTTACGATT	GATATTACCT 720
CTAATGGGTC	TTCAGCAGGT	ATTACCGCTG	TTAAGGAGAA	AACCGCTGAT	ATTGGTATGG 780
TTTCTAGGGA	ATTAACTCCT	GAAGAAGGTA	AGAGTCTCAC	CCATGATGCT	ATTGCTTTAG 840
ACGGTATTGC	TGTTGTGGTC	AATAATGACA	ATAAGGCAAG	CCAAGTCAGT	ATGGCTGAAC 900
TTGCAGACGT	TTTTAGTGGC	AAATTAACCA	CCTGGGACAA	GATTAAATAA	AATGTTTGCT 960
CCATAAATCT	CTAAAGAGAT	GCAGACGTTT	CATCGTACAA	TAAGATAAAG	AAGGCAAGTA 1020
GGGAGGTGTC	GTATCTCCCT	TACTTTCTTC	ACTAGAAAGG	ACAAGATGTG	ACAAAACAAG 1080
CCTTCAAAGA	AGCAGTTTTT	AGGGCAATTT	TTTTCATGAG	TGCAACAGTA	GCTGTTGTAG 1140
CTATTTTGCT	AATCTGTTTC	TTTATTTTTA	GTAATGGCTT	ACCTTTCATA	GCTAACTACG 1200
GCTTTGCCCC	TTTTTTATTA	GGCAGTGATT	GGTCGCCAAC	GAACATTCCG	GCAAGCTATG 1260
GTATTTTACC	AATGATCGTT	GGTTCCTTAT	TAATTACCTT	AGGAGCGATT	GTGATTGGGG 1320
TGCCAACAGG	CATCTTGACA	TCGGTGTTTA	TGGTTTATTA	TTGTCCAAAG	CCCGTCTATG 1380
GCTTCTTAAA	ATCAGCTATC	AACTTGATGG	CAGCCATTCC	ATCTATTGTT	TATGGTTTTT 1440
TCGGCCTACA	ATTATTGGTG	CCTTGGATTA	GAAGCTTTTT	AGGAAATGGC	ATGAGTGTCC 1500
TAACCGCTTC	GTTACTATTA	GGAATAATGA	TTTTGCCAAC	CATTATCAGT	TTGTCAGAAT 1560
CTGCTATCCG	AACAGTCCC	AAAACGTATT	ATTCTGGTAG	CTTGGCTCTA	GGAGCTAGTC 1620
ATGAACGGAG	TATTTT TAGT	GTCATCTTGC	CAGCTGCGAG	ATCTGGTATT	TTATCAGCAG 1680
TTATTTTAGG	AATCGGTCGC	GCAGTAGGTG	AAACCATGGC	AGTTATTTTG	GTGGCAGGCA 1740
ACCAGCCGAT	TATTC CAAGT	GGACTCTTTT	CAGGAACCAG	AACCTTAACA	ACCAATATTG 1800
TTCTGGAAAT	GGCTTACGCA	TCAGGTCAGC	ATAGGGAAGC	CCTTATTGCA	ACCTCAGCAG 1860
TTCTCTTTTT	CCTTATCTC	TTGATTAAATG	CCTACTTTGC	CTACTTGAAA	GGAAAATCAT 1920
CTTATGAGTA	AATACCTGCT	AAAAC TTCTC	GTTTATTGTT	TTTCAGCTTT	AACCTTTGGC 1980
TCTCTCTTTT	TAATCATTTG	TTTTATCCTC	ATCAAAGGCT	TACCTCATCT	AAGTCTATCC 2040



CTCTTTTCTT	GGACTTATAC	TTCTGAGAAC	ATTTCCCTTA	TGCCAGCGAT	TATTTCCACC	2100
GTTATTCTGG	TCTTTGGTGC	TCTTCTTTTA	GCCTTGCCCA	TAGGGATTTT	TGCTGGTTTT	2160
TATCTTGTGG	AATATACAAA	AAAAGATTCC	CTTTGTGTTA	AAATCATGCG	ATTGGCCTCA	2220
GATACCTTAT	CTGGGATTCC	TTCCATTGTT	TTTGGTCTGT	TTGGCATGCT	CTTCTTTGTA	2280
GTCTTCTTAG	GTTTTCAATA	CTCTCTGTTA	TCAGGAATCT	TAACCTCAGT	TATCATGGTG	2340
TTGCCAGTCA	TTATTCGCTC	AACAGAAGAA	GCCCTTTTAT	CTGTTAGTGA	TAGCATGCGT	2400
CAAGCAAGTT	ATGGACTTGG	GGCAGGTAAG	TTACGGACTG	TTTTTAGAA	TGTTCTACCA	2460
GTTGCCATGC	CAGGTATTTT	AGCTGGAGTG	ATACTAGCTA	TTGGCCGTAT	CGTTGGTGAA	2520
ACAGCTGCCC	TCATGTATAC	ATTAGGTACC	TCTACCAATA	CGCCAAGTAG	TCTCATGTCT	2580
TCAGGCCGTT	CTCTAGCCCT	ACATATGTAT	ATGCTGTCAA	GTGAGGGGCT	ACATGTCAAT	2640
GAAGCCTATG	CTACCGGCGT	GATTTTGATT	ATTACTGTTT	TAATGATAAA	TACTCTATCA	2700
AGCTTATTAT	CTCGAAAAC	TGTGAAAGGA	GCTTCCTAGT	ATGGGAACAT	TTTCAGTCAG	2760
ACACCTAGAC	TTATTTTACG	GGGATTTTCA	AGCCTTAAAA	AATATTTTCA	TTCAATTACC	2820
AGAAAGACAG	ATTACTGCCT	TGATAGGCCC	ATCTGGTTGT	GGCAAATCAA	CTTTTCTAAA	2880
AACCCCTAAC	CGGATGAACG	ATTTGGTTCC	TTCTTGCCAT	ATTGAAGGCC	AAGTCCTCTT	2940
AGATGAGCAA	GATATTTATA	GAGACAAATT	CAACCTTAAT	CAGCTACGTA	AGCGTGTAGG	3000
GATGGTTTTT	CAACAGCCTA	ATCCCTTTGC	CATGTCTATC	TATGATAACG	TGGCTTATGG	3060
CCCAAGGACA	CATGGTATTC	GAGACAAAA	ACAATTAGAT	GCCTTAGTGG	AGAAATCTTT	3120
AAAAGGGGCA	GCCATTTGGG	AAGAAGTCAA	AGATGATCTT	AAAAAGAGTG	CCATGTCCTT	3180
ATCTGGCGGT	CAGCAGCAAC	GCCTTTGCAT	TGCGCGAGCT	TTAGCAGTAG	AACCTGATAT	3240
TCTGTTAATG	GATGAGCCGA	CTTCAGCCTT	AGACCCATATC	TCCACTTTAA	AAATTGAAGA	3300
CCTCATTCAG	CAACTAAAA	AGGATTATAC	GATTATCATT	GTTACCCATA	ACATGCAACA	3360
AGCTTCACGT	ATTTTACATA	AAACTGCTTT	TTTCTTAACA	GGAGAAATTT	GCGAATTTGG	3420
AGATACCGTT	GACGTGTTTA	CCAATCCAAA	AGATCAGCGC	ACAGAAGACT	ATATTTACAG	3480
ACGGTTCCGA	TAAGGAAGGA	AAAACCTATG	AGAAATCAAT	TTGACTTAGA	ATTGCATGAA	3540
TTAGAACAAT	CCTTTTTAGG	ACTAGGGCAA	CTTGTCCTTG	AAACAGCTTC	AAAAGCCTTA	3600
CTGGCCTTAG	CCTCCAAAGA	CAAGGAGATG	GCAGAGCTAA	TTATCAATAA	GGATCATGCT	3660
ATCAACCAAG	GTCAAAGCGC	TATCGAATTG	ACCTGTGCCC	GTTTGTGGC	CTTGACGACG	3720
CCACAAGTGT	CTGACCTTCG	ATTTGTGATT	AGCATCATGT	CTTCTTGTTT	AGACCTTGAA	3780

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CGTATGGGAG	ACCATATGGC	AGGCATTGCC	AAAGCTGTTT	TGCAACTAAA	AGAAAATCAA
CTAGCCCCTG	ACGAAGAACA	GTTACACCAA	ATGGGTAAAT	TATCCCTCAG	CATGCTAGCC
GATTTATTGG	TTGCCTTTCC	TTTGCACCAA	GCCTCAAAAG	CTATTAGTAT	TGCTCAAAAA
GATGAACAGA	TTGACCAATA	TTATTATGCC	TTATCAAAGG	AAATCATTGG	ACTTATGAAA
GACCAAGAAA	CCTCAATTCC	CAATGGAACT	CAATACCTTT	ATATCATAGG	GCATCTGGAA
CGCTCGCTGA	TTACATTGCT	AACATTTGTG	AACGCCTAGT	CTACCTAGAA	ACAGGAGAAC
TAGTGGATTT	GAATTAATTC	AATAATCCT	TAAAAGAGAA	GAGTACGATT	AAGTACTCTT
TTTTATGGTT	GTAAAAAGT	TCATTTGACC	AATTTAAGCA	GTGTAGATAG	TGAGGAGTTG
TTTCAATTCT	ATCGTGAACG	AGGGAATGCT	GAAAACTTTA	TCAAAGAAAG	GAAAGCAGGA
TTCTTTGGGG	ATAAGACAGA	TAGTTCGACC	ATGATTAAGA	ATGAAGTACG	TATGATGATG
GGCTGTCTGG	CTTATAATCT	CTACCTCTTT	TTAAAGCAGC	TAGCTGGTGA	TGAAGTAAAG
TCCTTGACTA	TCAAGCGTTT	TCGACGTCTC	TCCTTCATA	TGCGCGGAAA	ATATGTCTCT
ACTGCTAGAC	GACATATTCT	CAAATTCTCA	AGTCTATACG	CCTATTCAAA	ACAGTTTCAA
GCCTTATTTG	ATACAATCTG	CCAGATAAAT	CTGATACTCC	CTGTTCCATA	TAGAGCTAGA
GGGCAGGGGA	AAACATGCCT	AACAGAATAA	GTCACCTTAT	TTTAAAAATC	GAGCATCAAA
CCAAGGGAGG	AGTCTGCCCT	TTTTTAGGAA	AAAATCAAGA	CAAATCTCCT	CAATTATGTC
TCGAACATCA	GAAATTAAGC	AAAATCACCA	GAAGGACAGT	ATTTCAACTA	GCTTTTCTGG
TAATTTTGA	ACTGTGTAGT	TCGTTAGTGC	CAGATATGAA	TAATTTGGGA	TGATAAATCT
TTCTTCCTCA	GGTAGCCTAT	CATAATACTC	TTCAAAAATC	TTATCAAAAA	CACTCTCTTT
CTTTTGGGCG	ATAGTTTCAT	CTTCGTATGT	AGGAGTCCTC	ATCAAGAAAT	ACTTCAATTC
TAGGTATTCC	TTATCCAAC	CTATATAACT	TGGCATCAAC	TTGTAATCTT	CAACCCCAA
ACGTTTCAGCA	ATATATTTTA	ACTTTGTTAG	TATTGGTCTG	GATTCTCCAT	TTTCAATTCT
AATTAATTGA	CGGATACTTA	ATTTCAGACTC	ATCACCACAA	AATTCTGAAC	GAAGTATTCT
TTTAGCCAAA	CGTAATCTTT	TAATTTTTC	GCCAAACTCT	CGCAACCTAC	AAGAACTTCC
TGAGTTGTTT	ACCTCTATTA	TAAGCATATA	CTGAATCAAA	CTATCTATCA	GATTCTTCT
CACTTTAACT	AAAGACTAAG	AGTTTATCCC	TTCGTCTCGG	TTTTTGTGTA	TTTTTCCACC
ATACCCAGT	AATGCAAGTG	CAAAATCCCC	TAGAATATGA	TAGAATAAGA	GAAAGAACTC
TATCAAGGAG	GAAATCATGG	AAAAACAAAC	CGTCGCCGTC	TTGGGGCCTG	GTTCTTGGGG
AACCGCCCTT	TCACAAGTCT	TAAATGACAA	TGGACACGAG	GTACGTATTT	GGGGAAATCT
TCCCAGACAA	ATCAATGAAA	TTAATACACA	CCATACTAAT	AAGCACTACT	TTAAAGATGT

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CGTTCTAGAC	GAAAATATCA	TTGCCTACAC	CGACTTAGCA	GAAACATTGA	AAGATGTGGA	5640
TGCGATTTTG	TTTGTGTGCC	CAACAAAAGT	GACACGACTT	GTTGCCCAGC	AAGTTGCACA	5700
AACCTTGGAC	CATAAGGTTA	TCATCATGCA	CGCATCAAAG	GGATTAGAAC	CTGATAGCCA	5760
TAAACGATTA	TCAACCATTC	TTGAAGAAGA	AATTCCTGAA	CATCTCCGTA	GTGATATCGT	5820
CGTTGTTTCA	GGGCCTAGTC	ATGCAGAAGA	GACCATTGTG	CGTGACCTAA	CTTTAATAAC	5880
TGCTGCTTCT	AAAGATTTAC	AAACAGCTCA	ATACGTTTCA	AAGCTATTTA	GTAATCACTA	5940
CTTCCGACTT	TATACCAATA	CGGATGTTAT	CGGGGTTGAA	ACTGCTGGTG	CTCTTAAAAA	6000
TATTATTGCT	GTCGGTGCTG	GAGCTTTACA	TGCTCTTGGA	TTTGGTGATA	ATGCTAAGGC	6060
AGCCATCATC	GCTCGAGGTT	TAGCAGAAAT	CACCCGCCCTA	GGGGTAGCAC	TCGGGGCCAG	6120
TCCATTGACC	TATAGCGGCT	TATCTGGTGT	GGGAGATTTG	ATCGTAACGG	GAACCTCCAT	6180
CCACTCTCGT	AACTGGAGAG	CTGGAGATGC	TCTCGGACGA	GGAGAATCCC	TAGCTGATAT	6240
AGAAGCTAAT	ATGGGCATGG	TAATCGAAGG	AATTTCAACG	ACTCGAGCAG	CCTATGAACT	6300
AGCCCAAGAA	CTTGGAGTCT	ATATGCCCAT	TACACAGGCT	ATTTACCAAG	TTATTTATCA	6360
CGGAACCAAT	ATCAAAGATG	CCATTTATGA	CATCATGAAC	AATGAATTTA	AAGCAGAAAA	6420
TGAGTGGTCT	TAACCCCTCTA	TAGAAAGGAT	TTTTATGACA	TCAAAAGTTA	GAAAGGCAGT	6480
CATCCCTGCT	GCTGGACTAG	GAACTCGATT	TTTACCAGCA	ACCAAGGCC	TTGCCAAAGA	6540
AATGTTGCCA	ATCGTAGACA	AACCAACTAT	CCAGTTTATC	GTGGAAGAAG	CTCTCAAATC	6600
AGGTATTGAA	GATATTCTAG	TTGTCACTGG	TAAATCAAAA	CGTTCTATTG	AGGACCACTT	6660
TGATTCAAAC	TTCGAATTGG	AATATAACCT	CAAAGAAAAA	GGGAAAACAG	ATCTTTTGAA	6720
GCTAGTTGAT	AAAACAACTG	ACATGCGTCT	GCATTTTATC	CGCCAAACTC	ATCCACGCGG	6780
TCTCGGAGAT	GCTGTTTTGC	AAGCCAAGGC	TTTCGTCGGA	AATGAACCTT	TTGTCGTTAT	6840
GCTTGGTGAT	GACTTGATGG	ATATCACAGA	CGAAAAGGCT	GTTCCTACTT	CCAAACAACT	6900
CATGGATGAC	TACGAGCGTA	CCCACGCGTC	TACTATCGCT	GTCATGCCAG	TCCCTCATGA	6960
CGAAGTATCT	GCTTACGGGG	TTATTGCTCC	GCAAGGCGAA	GGAAAAGATG	GTCTTTACAG	7020
TGTTGAAACC	TTTGTTGAAA	AACCAGCTCC	AGAGGACGCT	CCTAGCGACC	TTGCTATTAT	7080
CGGACGCTAC	CTCCTCACGC	CTGAAATTTT	TGAGATTCTC	GAAAAGCAAG	CTCCAGGTGC	7140
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TGCTCGTGAG	TTCAAAGGGG	CTCGTTACGA	TGTCGGAGAC	AAGTTTGGCT	TCATGAAAAC	7260
ATCCATCGAC	TACGCCCTCA	AACACCCACA	AGTCAAAGAT	GATTTGAAGA	ATTACCTCAT	7320

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CCAACTTGGA AAAGAATTGA CTGAGAAGGA ATAACAAAAT CATTATATATA AAGATTAGCC	7380
ACACATAAAT TAAGTAAATT CTCTACTTGA ATCTACCTAT TTAATAAAAA CTAATGAAAA	7440
CGCTATACTT GTATTTGTTT TTTCATTAAA ATAAGAGTAG AATAAATTAG TATAGTAAAA	7500
CAAAAAAGCA CCGAATCGGT GCGCACTTT TCAAGTTGTG TACGGACAAA GCCTTATTTT	7560
AACTTTGCTA TGTGTTTCT AATGGTTCCA AAATAATAAA TAATTTTAAA TTTGACTTAA	7620
CTGTTGGAGT AGTCATGGTT AAATTAAATC AACCGAGCCG AACATAAGTT GTTTAATTTT	7680
GTGGAAGCTA TTAATAAAAA TATAATAAGG GAGAAAGATA GGTGTAATTT TAATTTTAAA	7740
GTAATTGCGG ACACTATCAA AGAAAAAGAT TATGGAGAAC AAATTTGTAG AATTTATCGA	7800
AAACAATAAA AAAGTAATCA TTTCATCAGT TGCAGTTGGT GTTGATTTGG TATTAGGGTT	7860
TGGATGGTAT TCATATAACC AACACAAGC AGAACAACAA GCAAAAATTG TACAATTAGA	7920
AAAAGATAGC AAATCAGACA AAGAACAAGT TGATAAACTA TTTGAATCAT TTGATGCATC	7980
TTTCAGATGAA TCTATTTCTA AATTTAAAGA ACTATCTGAA ACTTCACTTA AAACCGATGC	8040
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TTTGCAAAAA GGTTTGGCTT ATGATGTTAA AGATTCAGAT GACAAATTTA AAGATAAAGC	8160
AACTCTTGAA ACAAATGTAA AAGAAATTAC AAAACAAATT GATTTTATCA AAAAAGTTGA	8220
TGAAACTTTT AAACAAGAGA ATTTGGAAGA AACTCTTAAA TCTCTAAATG ATCTTGTTGA	8280
TAAATATCAA AAACAAATCG AACTTTTGAA GAAAGAAGAA GAAAAGCTG CTGAAAAAGC	8340
TGCTGAAAAA GCAAAGGAAT CTTCTAGTCA AAGTAATTCT TCTGGTAGTG CTTCTAATGA	8400
GTCTTATAAT GGATCTTCCA ATTCAAATGT AGATTATAGT TCATCTGAAC AAATAATGG	8460
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TGGATCATCA GAACAATATT CATCTAGCAA TTCAAACAGC GGAGCAAATA ATGTCTACAG	8580
ATATAAAGGC ACTGGTGCTG ACGGCTATCA AAGATACTAC TACAAAGATC ATAATAATGG	8640
AGATGTGTAT GATGACGATG GAAATTACCT TGGGAACCTT GGTGGCGGCA TTGCAGAACC	8700
TAGTCAACGC TAATAACTAT TTTAGAGCTG TGTGTTTCG AATGGTTCCA AAACACATTA	8760
AAAGCTACTC ATTTTTTAAG TAGCTTTTTT CTTATTCAAG TTTACATATT ATACTCAATG	8820
AAAATCAAAT TCAAACCACG TCAGCATCGC CTTACCGTAG GTATGGTTAC TGACTTCGTC	8880
AGTTTCATCT ACAACCTCAA AACCATGTTT TGAGCTGACT TCGTCAGTTC TATCTACAAC	8940
CTCAAAGCAG TGCTTTGAGC AACCTGCGGC TAGCTTCCTA GTTTGCTCTT TGATTTTCAT	9000
TGAGTATTAG TCGTCACAAT CCCATTCCCT TGTAGAAAAG CAAAATGGCG AGTCCTACGA	9060
ACAAGACTAC CGCTCCTAAT CTCTGGCTGG TGTTATACAT CCGTTTTTCT CCTCTAACTG	9120

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GAAAGATAAC TGCTAGAAAT GCGCCACCAA CTGCACCACC GATATGGCCT GCTAGGCTGA	9180
TTCTTGGAAT CAGAACACTT CCAATAATGT TAACCACAAA AAGTGTGAGA TAGGATTGCC	9240
CTAGCTGTTG GATATAAGGA TTGCGAGTTG CATAGCGAAG AACAATAATC GCGGCAAATA	9300
GCCCATAAAG AGAGGTAGAG GCGCCTGCTG CTAAGGATTT AGGACTAAAT AAAAAACAA	9360
AGAGATTGCC CATCATTCCT GATAAAAGAT AGAGAAAGAA AAAGTGTCTA GAACCGAAAA	9420
TCTCCTCTAC CTGCCTTCCA AGATAATAAA GTGAAAGCAT ATTAACAATG AAATGTTCCC	9480
ACCCAATATG AACAAAAATG GCAGACAAGA GACGCCAAAC CTGCTCGGGA AAGAGGCGAA	9540
TAGCTGGCCC ATACATGGCT CCAAATCGAA ATAATGTATC TGCCCTGTCA AAGTTTCCGC	9600
CTGCAGTGAC CAACATTAGT AAAAATACCA AGGCCGTAC TAAGAGGAAG AAAGTGTCTA	9660
CAGGGTAACG TCTATCAAAG ATTTCTTCA TCAATTAATA CCTCCTGAAC AGGAATATCA	9720
TGGTTTTTCA GTATAAAGTC CTGAATTTGA CAAGGATATA TCGTACTCAA AGTACGACCA	9780
GAAAAATGTT CCAGATAGCG GTCATAATAG CCTCCACCGT ATCCTATCCG ATATCCTTTC	9840
GTCTGAAAAG CCAGACCAGG AACATGAATC AAATCAATCT GAGATGCATC CACCACTTCC	9900
AAATCTCCCT GTAGCTCCAG TAAGGCAAAG AAAGTTTTTA CCAACTGTTG CGGATCATAG	9960
ACCACAAAGT CCATGCGCCC CTGCGGATAA GTTTTGGGTA TTAAACCTT CTTGCCGTCC	10020
TTTCAGCGCT GCTCAATCAG TTCCTGCGTT TGAAACTCAT GAGAAAAAGA GAGGTAGGTT	10080
GCGATGACCT TGGCTTCTTG ATAAAAGGGG TGTGTAAAA GCGCTCGGT TAAAGCTTGG	10140
TCTATAGCCT GTTTTGTGCT TTGAGATATA GCCTTCATTT CATGCAAGAC TTGCTTGCCT	10200
AATTCGATT TCATAGACAA GCCCTCTATT CTGCTGCCCT CTTTTTCAGG AAAGTAGACA	10260
CCGCAGCCAC CCAATAGCT AAGACTTCTT CCTTAGGACT CATTGAGGG TGATGAAGAG	10320
CGTAGGGACT ATCGATACCT AGCCAAAACA TCACGCCATC AACCTTTGAA AGGAGATAAC	10380
CAAAGTCCTC GCCTGTCATA GCAGGTTCGA TATCAATCAA CTCGATTCCG TCTTTTTCGT	10440
CAAAGAAGTC CATCAGTTCA CGCGCCAAGG CTGGATTGTT CTCAACAGGT AGGTATCCAC	10500
CTTGTTTGAG TTCCACTTCG ACTTCCATAT CAAAGGCAGC TGCAACCCCT TCTGCAACTG	10560
TTTTTACCCT CTTTTGCACC AAGAGACTCA TGTCTGTGT CAAGGCACGA ATAGTTCCAT	10620
GTAAAAAAGC TGTGTCTGTG ATGACATTGT TGGTGGTTCC AGCTTGAAAA ACGCCGAAGG	10680
TCACCACTGC TCCCTCGATT GGGTTGACAT TGCGGCTAAC AACTGACTGC ACTTGGGTCA	10740
CAAAGTAACT AGCCGCCACC AAGGCGTCAT TGGCTTCATG AGGAAAAGCT GCGTGGCCAC	10800
CTTTCCTTT GAAACGGATC TTCACCTCGC AAGTTCCTGC AAAGAGTGTA TGAGTATTAG	10860

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TCGCAATCTG GCCGACTTTC AAATCTGGAC GAACATGGAG ACCATAGAAT TGATCTGGCA	10920
ACCAATCTCC AAAAGCACCG TCCTCATACA TGAGCATACC ACCAGCTTCA TTTTCTTCAG	10980
CAGGCTGAAA TAGAAAGAGC AGATTATTCT TGGGTGCTC CTCAAGGGCG CGCTCAAGAC	11040
AGCCTAAGGC AATGGTCATA TGAAAATCAT GGACACAGGC ATGCATGCCA CCTTGGTGTT	11100
GAGAAGCAAA AGGTAGACCT GTTTGTTCGA CGATAGGCAG GCCATCAATA TCTGTCCGCC	11160
AACCAATGGT TCGCTCCGGC TGACTTCCCT GCAGGTAGAC CAAAATCCCT GTCCGCCAAG	11220
TACGAATTTG AACAAAATCC TTGCCCGTAG TCAATTCTC AATCACATCC AGCAAATAAG	11280
CCTGAGTCTT GAACTCCTCC AAGCCAATCT CTGGAATCTG GTGTAAATCT CGTCTAGTCT	11340
GAATCAAATC TAACATCTAT CTGTCTCCG ATATAGCAGA AAGAGGCTGG AAAAAGGGTT	11400
CCGCCTCTTT TTTACTTTTA CAATTACAAG GTACGAAGCG CATCCTCTAG CGCTGTTTTT	11460
TGTTGAGTTT GGGCATCAAT TTCTTTGATA ATACGAGCTG GAACACCTGC TACTACCACG	11520
TTTTCTGGA CATCTGGGT AACAATAGCT CCTGTGCGA CAACTGAACC ACTACCGATT	11580
TGGACTCCTT CGATAACCAC TGCATTAGCA CCGATAAGAA CATTGTCTCC GACACGACT	11640
GGTTCAGCAC TAGCTGGCTC AATCACACCT GCCAAAATG CACCTGCACC AACGTGGCTA	11700
TTTTTTCCAA CGATGGCAG GCCACCAAGG ATGGCACCCA TGTCAATCAT GGTTCAGCA	11760
CCGATTTTCA CACCGATATT GATAACAGAT CCCATCATGA TAACAGCATT GTCACCAATT	11820
TCCACCTGGT CACGGATAAT CGCACCTGGC TCGATACGAG CGTTGATAGC ACGCTTATCT	11880
AGCAAAGGAA CTGCAGAATT ACGAGCATCT TGCTCGACAA CATAATCTTG ATTTTCTACC	11940
AAACCTTCAA GAAGCGGAGC CACATCCTTC CAGTCTCCGA ATAGGACATT TCCTAGTTTG	12000
ACAACAGAGC TAGGCACAGC AGTTGCGAGT TGCCCCCAA AGGTTACTTT GAACTGGTT	12060
TTCTTTTCAG CATTGGCGAT AAATTGGATA ATTTCTTGAG CGTTCATTTT TGTCAGCAGT	12120
ATAGGTG	12127

## (2) INFORMATION FOR SEQ ID NO: 149:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12566 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 149:

CCATCCTTCT GTTGATGTGA CAGGAATGAT GATAAATCAA CCAGTAGCTA GTCGCGAAGA	60
GGTGACAGAG GCTTTGAGTC ACTTGGCGGT AGAGACAAT AGTCTCATTG CTCGTCGAAT	120